

MANAGEMENT OF OLD-GROWTH FORESTS OF THE PACIFIC NORTHWEST

JOINT HEARINGS

BEFORE THE
SUBCOMMITTEE ON FORESTS, FAMILY FARMS,
AND ENERGY
OF THE
COMMITTEE ON AGRICULTURE
AND THE
SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC
LANDS
OF THE
COMMITTEE ON
INTERIOR AND INSULAR AFFAIRS
HOUSE OF REPRESENTATIVES
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MANAGEMENT OF OLD-GROWTH FORESTS OF THE PACIFIC NORTHWEST

TUESDAY, JUNE 20, 1989

HOUSE OF REPRESENTATIVES; SUBCOMMITTEE ON FORESTS,
FAMILY FARMS, AND ENERGY; COMMITTEE ON AGRICUL-
TURE; JOINT WITH SUBCOMMITTEE ON NATIONAL PARKS
AND PUBLIC LANDS; COMMITTEE ON INTERIOR AND INSU-
LAR AFFAIRS,

Washington, DC.

The subcommittees met, pursuant to notice, at 10:15 a.m., in room 1300, Longworth House Office Building, Hon. Bruce F. Vento (chairman of the Subcommittee on National Parks and Public Lands) presiding, together with Hon. Harold L. Volkmer (chairman of the Subcommittee on Forests, Family Farms, and Energy).

Present from the Subcommittee on Forests, Family Farms, and Energy: Representatives Olin, Stallings, Jontz, Panetta, Morrison, Marlenee, R. Smith of Oregon, Schuette, and Heger.

Present from the Subcommittee on National Parks and Public Lands: Representatives Williams, Darden, Clarke, DeFazio, McDermott, Marlenee, Craig, Rhodes, R. Smith of Oregon, and Thomas.

Also present: Representative E (Kika) de la Garza, chairman of the Committee on Agriculture and Representative Unsoeld.

Staff present from the Committee on Agriculture: Daniel E. Brinza, counsel; Joseph Muldoon, assistant counsel; John E. Hogan, minority counsel; Alice Devine, minority associate counsel; Glenda L. Temple, clerk; Timothy P. De Coster, James R. Lyons, Joe Dugan, and Allison Biggs.

Staff present from the Committee on Interior and Insular Affairs: Dale A. Crane, staff director, James Bradley, Nils Johnson, Charlene Seamens, and Kurt Christensen.

OPENING STATEMENT OF HON. BRUCE F. VENTO, A REPRESENT- ATIVE IN CONGRESS FROM THE STATE OF MINNESOTA

Mr. VENTO. I want to thank my colleague, Mr. Volkmer, the chairman of the Agriculture Subcommittee on Forests, Family Farms, and Energy, for working so closely with me on this hearing.

This, of course, is a joint effort by our two subcommittees and Mr. Volkmer and his staff played a key role in putting this together, not the least of which, was securing the room. We appreciate that.

The old-growth forest issue is of national importance. Although these forests are found primarily in the Pacific Northwest, all Americans will be affected by how we manage them. We have a

busy day today. We have a lot of statements. I'm going to ask unanimous consent that all members be able to place their entire opening statements in the record. Hearing no objection, so ordered.

We've organized this hearing on the basis of a number of panels of individuals. Each witness will be given 5 minutes to present his testimony and then members will be recognized for 5 minutes each to question the panel. Hopefully, we can move along in a manner that will help illuminate the issue, give us information, perhaps provide us with some direction in terms of law or policy changes that are necessary.

This is a tough problem. It has a lot of importance with regards to the economy; a great deal of importance to biodiversity and the very special areas that constitute the old growth areas in the Pacific Northwest. We want to look into this and try and explore the problem as thoroughly as we can in the next 2 days.

I'm chairing this hearing today, but my colleague, Mr. Volkmer, will be chairing the hearing on Thursday. For part of today's hearing I have to be on the floor to present some bills for the suspension calendar and Mr. Volkmer will chair.

So, without further ado, let me again thank my colleague, the distinguished subcommittee chairman, Mr. Volkmer, and ask him if he has an opening statement.

**OPENING STATEMENT OF HON. HAROLD L. VOLKMER, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI**

Mr. VOLKMER. Thank you very much. I first want to welcome the chairman and members of the National Parks and Public Lands Subcommittee to the Agriculture hearing room.

Our Subcommittee on Forests, Family Farms, and Energy is pleased to join with them in the hearings on the old-growth forests of the Pacific Northwest.

We had the opportunity to begin our review of this critical topic during field hearings in Medford, Oregon, in 1987. The subcommittee was presented with conflicting views regarding the amount of old-growth forest remaining at that time, and it was evident that part of the discrepancy was due to differing definitions of what constitutes "old growth."

One area we intend to focus on today is the definition of old growth used by various groups and individuals, to better understand just what resources are being discussed as we consider the issues presented.

We also want to examine existing inventories of forests that meet the various definitions, so that we can evaluate the need for special management of these areas.

Old-growth forests, or ancient forests, as they are sometimes called, present a complex set of issues for policymakers and resource managers alike. I can think of few instances where the conflicts for forest utilization are so severe, largely because these lands are often among the most productive for timber harvest and, at the same time, the most valuable and critical for wildlife habitat, recreation, and other uses.

The management of these forests presents a strong challenge for the multiple-use concept. One critical factor in the debate, which I

intend to pursue today, is the amount of old growth that is already protected as a result of wilderness designation or other action. Clearly, this is something we will need to know as we consider whether additional protective action is necessary or appropriate.

Another major issue we will focus on today is the management of old-growth forests. Can forests which are currently old growth in character be managed to maintain that character, or do they change over time, due to fire, disease, or other factors? Can forest areas which are not old growth at present be managed so that eventually they will become old growth over time, in effect, creating additional old-growth forests?

If so, what kind of management changes are required? Will lengthening rotation periods or selective harvesting address the problem or are we talking about prohibiting harvesting in some stands for hundreds of years?

Our committee puts a great deal of stock in the forest-planning process. We will want to hear from some of our witnesses whether they believe the forest plans for the Pacific Northwest adequately address the old-growth issue. It is obvious from the debate that many do not find the plans adequate, so we will need to know why.

We have here, as I said, a complex issue of tremendous national concern. Management of the national forests in the Northwest is critical, not only to the individuals and communities in the region, but also to the rest of the Nation. I hope we continue to work on these matters with an understanding and appreciation for all points of view and make decisions that are in the best interest of all of our citizens.

Thank you.

Mr. VENTO. Mr. Morrison.

OPENING STATEMENT OF HON. SID MORRISON, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mr. MORRISON. Thank you, Mr. Chairman. I have a statement for the record. I would like to mention also that this is a complex problem, as you've indicated. We have a number of people here from the State of Washington that will be participating. I wish that we had others in both the economic issue and management issue and area identification panels, but I just want to assure everyone that Washington State is almost an equal partner in this concern, as we will hear from a number of folks today.

The major thrust, as we look at the old-growth issue, is a combination of forest planning and endangered species. I have always liked to start hearings with a goal in mind and, of course, that goal, on this issue, has to be better understanding. I also like to start with some answers in mind.

In this case, I have to admit that I don't have the answers. I hope through the better understanding, we can, in fact, all work together to find some answers, to get people back to work in the Northwest, and yet still find that balancing line on what the public really wants on management of our national forests resource.

Thank you to both of our chairmen for putting this hearing together and we will participate enthusiastically.

[The statement of Mr. Morrison follows:]

STATEMENT OF
THE HONORABLE SID MORRISON
BEFORE THE JOINT HEARING OF THE
FORESTS, FAMILY FARMS AND ENERGY SUBCOMMITTEE
AND
THE NATIONAL PARKS AND PUBLIC LANDS SUBCOMMITTEE
JUNE 20, 1989

Thank you Mr. Chairman. The subject of today's hearing - Old Growth Forests of the Pacific Northwest - is to shed some light on an issue that hits very close to the nerve for several of us on both of these Committees assembled today. It also provides a chance to bring the rest of the nation up to speed on what we, from the Pacific Northwest, have been hearing from the folks back home loud and clear for some time. I view the purpose of this hearing as an information gathering session since much of the information we have received to date has been inconsistent. Since the various interests are using different information gathering techniques it is difficult to reach lasting conclusions. I look forward to the opportunity to put together a clearer picture.

Our witness list identifies a broad cross section of our forest constituencies. Although not reflected by today's list, the State of Washington shares a substantial portion of the crisis faced by Oregon and California. Mr. Chairman, I would like to request that the hearing record remain open for an additional 30 days to permit affected Washingtonians time to contribute to today's learning effort. For the six of us here

from Washington, Oregon and northern California, this is a very real problem which demands a timely solution if the economies of our States are to survive. Current estimates place as many as 130,000 people out of work in the region if the situation continues.

If I may be permitted to quote a good friend of mine from the environmental community in describing the scope of the old growth debate "on the one hand, environmentalist spokesmen believe that the remaining ancient forests on public lands constitute a biological, recreational, and spiritual resource unmatched on this planet, which should be protected and logged no further. On the other hand, forest products industry spokesmen believe that if logging ceases on even a significant portion of the remaining ancient forests, their industry will be virtually shut down." As my friend describes, each side is firmly dug into their own position leaving the rest of us to find a workable answer to a no-win question. There are simply no easy answers.

Again, thank you for this opportunity Mr. Chairman. I would like to welcome all of our witnesses and look forward to their testimonies.

Mr. VENTO. Mr. Marlenee.

**OPENING STATEMENT OF HON. RON MARLENEE, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF MONTANA**

Mr. MARLENEE. Mr. Chairman, I appreciate the opportunity to put my opening statement into the record and will do so.

I am intrigued about the timing of today's hearing coming 5 days before the timber summit in Portland, which is the product of months of exhaustive planning by the entire Oregon congressional delegation, their Governor and representatives from industry and environmental groups. I would have preferred if we had delayed our hearings by a few days to at least not give the appearance of trying to upstage the diligent efforts of our colleagues from Oregon.

I am outraged at many tactics used by some in the environmental community that amount to economic sabotage of entire communities in the Northwest. They seem to be extremely effective on a piecemeal basis in eroding the timber base of our public lands. A wild and scenic river here, expanding Redwood National Park over there, an area of critical environmental concern somewhere else and, of course, several thousand acres of old-growth forest for a pair of spotted owls. Needless to say, all these designations are emasculating our timber base on public lands.

To add injury to insult, after these groups have cleverly and adroitly got their way in the legislative process, they then focus their attention on the judicial system. As we speak, over one-third of the BLM timber sales and one-half of the Forest Service timber sales in Oregon and Washington are enjoined because of environmentalists suing Federal agencies over the spotted owl.

This Congress must provide some leadership and control over the kinds of environmental obstructionism that threatens the survival of entire communities in the Northwest. It is not only workers and their families that are threatened, but road and school systems funded by timber receipts. Hopefully, these 2 days of hearings will illustrate why we painfully need to bring some balance back to this debate before it is too late.

Mr. Chairman, I would like to request that the hearing record remain open for an additional 30 days to permit affected Washingtonians time to contribute to today's learning effort.

Mr. Chairman, with that, I will close.

Mr. VENTO. I appreciate that. I am advised that the record can be open for 2 weeks under committee rules. That gives them a little extra time to provide information for the record.

Mr. MARLENEE. Well, continuing, Mr. Chairman, I hope that that opportunity does exist. There are those in the forest products industry and those who utilize the public lands for recreation that are finding management plans unsuitable and it appears that the environmental community has these people shoved right up against the wire.

Maybe these hearings will bring out some of the conflicts that exist, but they contend, in the forest products industry, that any lost opportunity on the forests will mean that they are virtually shut down. We have faced that similar situation in Montana.

Mr. VENTO. I thank the gentleman for his opening statement.
Mr. Jontz.

Mr. JONTZ. I have no opening statement.

Mr. VENTO. Mr. Olin.

Mr. OLIN. Nothing.

Mr. VENTO. Mr. Stallings.

Mr. STALLINGS. Nothing, Mr. Chairman.

Mr. VENTO. Mr. Williams.

**OPENING STATEMENT OF HON. PAT WILLIAMS, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF MONTANA**

Mr. WILLIAMS. Thank you, Mr. Chairman.

These issues before us today are critically important and I am hopeful that both the witnesses and the members will be as thoughtful as possible. I hope that all of us can avoid temptations toward overstatement or sloganeering. Both sides have a real case to make here.

The economy of the Pacific Northwest, at least the timber economy, which I add, has been doing extraordinarily well during the last half of this decade. The timber economy's future may rest upon the decisions that are made upon this issue.

On the other side, these old-growth forests are not just nice to look at, they support many species including the human species. There are dead snags still standing in the Pacific Northwest that have been standing longer than America has been a Nation. That says something about more than just their longevity. It talks about the importance of root structure, canopy, homes for important species.

So, both our economic future and the well-being of us as a people rest with this issue. Again, I am hopeful that we will all avoid levity, at least in its worst aspects, sloganeering and instead, try to reach the kinds of thoughtful conclusions that the Pacific Northwest and this country so desperately needs on this critical issue.

Thank you, Mr. Chairman.

Mr. VENTO. Thank you. Mr. Smith, the gentleman from Oregon.

**OPENING STATEMENT OF HON. ROBERT F. (BOB) SMITH, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON**

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman.

Mr. Chairman, you've really put your finger on the heartbeat of what's occurring in the Pacific Northwest with these hearings. They'll be most important because preliminarily, they will give this committee an opportunity to take a look at what is occurring in the Northwest before the so-called summit meeting on June 24, called by the Governor of Oregon and the leading Members of Congress for the State of Oregon, but it will be expanding to Washington and northern California and the rest of the West, and certainly to these two committees. So, it's most important we discuss these issues.

By the way, unless someone tells you differently, I'm telling you that this is the most important economic issue ever to face the State of Oregon in my memory, and that includes 22 years in the

Oregon Legislature and 7 years in the Congress. So, this is the life breath of the economy of our States and of the Pacific Northwest.

The timber industry is the No. 1 economic producer of jobs in the Pacific Northwest, as it is in region 6, which we call Oregon and Washington. It's the largest producer of timber in the United States. With the State of Washington, 50 percent of the soft woods produced in America are produced in those two States alone. I emphasize again the importance of this issue.

We have been grappling with the question of how do you divide up public lands for a long time. We've been operating under the multiple-use idea, which means everybody has an opportunity to use the public lands and I thought, doing it rather well, until we started dividing up what is multiple use.

As a result of that, in the Northwest, the Congress has chosen to set aside lands for specific uses—wilderness, in many cases; set asides for wilderness rivers; set asides for special uses on the forest itself, constraining the forest management and the BLM management to operate in such a way as to set aside certain stream bank protections and others, all I think with good intentions.

But the noose finally is beginning to strangle the economy and the people in our area and now with this question of the ancient forest and the spotted owl, we have come to the final chapter. The final chapter is this: if nothing is changed, we will indeed put some 130,000 people out of work, it will change the whole economic picture of the Pacific Northwest, and I suppose that's worth our attention.

Lest someone along the way tell you that all the ancient forests are gone, I just want to remind everybody that one-half of the old growth in region 6 is already set aside—one-half. So, the ancient forests and the old growth are not going to go away. We're operating on half the forests now and we're going to battle about how we manage the remaining half. Will it be multiple use or are we going to continue to divide up the program?

One other issue that my chairman of forests knows very well—we already have 1 billion board feet of timber tied up in the courts, through appeals, by radical preservationists in the Pacific Northwest. We have 500 million board feet of timber under management of Bureau of Land Management already tied up in the courts.

What we have done, Mr. Chairman, is allowed the process of decisionmaking to flow from the Congress to the courts of the United States and what that has meant is, we've changed the management of timber from the silviculturalists and those we hire as professional managers to the courts.

Now, I suggest that that is a bad method of management and we ought to be able to change it. If the Congress is going to provide the policy and we're going to hire people to carry out the policy, it ought to be done that way. At the present time, the radicals have found a way to use the courts to delay the process.

Now, 1 billion board feet and 500 million board feet, my friends, accounts for at least one-quarter of the allowable cut, which indeed has put us out of business. We have mill closures, people out of work, and we're already feeling the strangling effect of what may occur with the spotted owl and these questions of battling the quest of the ancient forest.

So, with that little background, I must tell you that in your hands you hold the future of the State of Oregon. Thank you, Mr. Chairman.

Mr. VENTO. I thank the gentleman.

Mr. DeFazio from the State of Oregon, member of the Parks and Public Lands Subcommittee. Mr. DeFazio.

**OPENING STATEMENT OF HON. PETER A. DeFAZIO, A
REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON**

Mr. DeFAZIO. Thank you, Mr. Chairman.

I don't believe that any congressional district in the Nation has seen more impact from the current controversy than mine. Southwest Oregon, part of it in Representative Smith's district, but obviously part in mine, but I believe that at this point, the injunctions have had more impact in my district because of the concentration of both BLM and Forest Service lands.

There's more controversy over the issue of old growth in my district. I have a district that is very dependent upon the timber industry, but also a district where people love to recreate, hunt, fish, and otherwise enjoy our forests, including back country experiences.

So, I believe that the conflict and the lines are drawn very firmly, but there's a vast number of people in the middle who are trying to puzzle through to exactly what is the truth. Where does the truth lie in this issue? How critical, how quickly will old-growth forests be liquidated if we continue current practices? What will happen to the economy with restrictions on old-growth harvests? Should some be set aside? There are a lot of questions that remain unanswered.

I'd give an example that I was on a television show with some industry and environmental group representatives about 8 days ago or 2 weeks ago, I guess, and they all asserted with great finality, certitude—one said 200,000 acres of ancient forests or old growth were left. Another said 400,000 acres were left. And another said 4.3 million acres were left.

People watched that and they asked me, well, how much is left? Well, I asked the Forest Service how much is left and there we stand. No one seems exactly to know, although everyone has a great certitude in their numbers.

So, I look forward to the hearings as providing some of the information and data base and answers to some of these questions that I keep asking and my constituents who are in the middle keep asking.

I believe that we cannot continue to manage our forests through the Federal courts. They are not only short-circuiting the planning process, but actually engaging in day-to-day management of individual sales on the forests. I think Congress has to step in at some point and, quite frankly, from the perspective of my district, that time is now.

So, I look forward to us getting the data we need to take action through these hearings, at least as a good start.

Mr. VENTO. I thank the gentleman. Mr. Thomas.

Mr. THOMAS. Mr. Chairman, I look forward to the testimony. I have no statement.

Mr. VENTO. Mr. Rhodes, did you have an opening statement this morning?

Mr. RHODES. Mr. Chairman, I have no opening statement, but I ask unanimous consent to submit an opening statement on behalf of Congressman Denny Smith from the State of Oregon.

Mr. VENTO. Without objection. Hearing no objection, so ordered.

Mr. RHODES. Thank you.

[The statement of Mr. D. Smith of Oregon follows:]

Opening Statement of
the Honorable Denny Smith
June 20, 1989

I recently received a letter from a thirteen year old boy in my district which read, "Dear Mr. Smith, please help us keep my dad's job. He is a logger. Thank you." For me, the issues we are discussing here today cannot be viewed apart from the lives we affect with federal land management decisions.

The timber industry is vital to Oregon, and a continued supply of public timber is needed to keep Oregonians employed. In 1988, the timber industry in Oregon provided 78,000 direct jobs, and Oregon counties received \$252 million in receipts from timber harvests off federal lands.

The Federal Government owns 48 percent of Oregon, and controls almost 60 percent of the commercial timber stands. A complete end to the harvesting of timber off of federal lands would plummet Oregon into a severe recession, if not a depression. I am here to say that I am willing to fight for Oregon workers and their families.

Oregon is a beautiful state with abundant natural resources. There are certainly areas which should be preserved, which is why I joined with my colleagues in supporting the Omnibus Oregon Wild and Scenic Rivers bill last year. However, most areas should remain available for genuine multiple-use, meeting all the values for which our forests are managed--including timber production.

Currently, one-half of all Forest Service timber sales and one-third of all BLM sales are enjoined because of lawsuits over

the spotted owl. This situation has reached such crisis proportions that the entire Oregon delegation and the Governor are meeting this coming Saturday with representatives of environmental organizations and the timber industry in an effort to resolve certain issues. Incidentally, that upcoming meeting is the reason that many interested parties from Oregon were unable to participate in today's hearing.

Good land management decisions must be based on good science. I think that today's hearings will show that there is no consensus on the definition of old-growth, or on the inventories of existing stands. I also hope that today's hearing will show that there are large gaps in the data base on which the decision to list the northern spotted owl is based.

Since we do not have this information, let's take the time to get it. We must not make long-term land allocation decisions based on flawed or incomplete data.

On a related note, we must begin to look at environmental issues in a global context. In this era of concern for the deforestation of third world countries, I believe that the global demand for wood products can be met off of well-managed U.S. forests in an environmentally sound manner.

I would like my colleagues to be aware that certain of the areas which may be identified during this hearing have been examined for single-use management, and have been rejected.

In closing, I would like to welcome all of the witnesses here today. I appreciate your willingness to travel here on this important issue, and I look forward to hearing your testimony.

Mr. VENTO. Mr. Herger.

OPENING STATEMENT OF HON. WALLY HERGER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF CALIFORNIA

Mr. HERGER. Thank you, Mr. Chairman.

I believe that the management of old-growth forests is indeed a critically important issue and I therefore am grateful to see that Interior and Agriculture Committees are jointly holding these hearings in order to adequately address the situation.

This issue is particularly important at this time because the livelihood of thousands of people are at stake. I believe we in the Congress need to be taking a close and hard look at all of the facts involved, in order to get at the truth, and then make our decisions accordingly.

Though I believe we must undertake efforts to save the spotted owl and preserve portions of our old-growth timber, I also firmly believe that the impact of our decisions must be carefully considered. That is, I believe that the impact of our forest management policies on people deserve equal consideration with the policies' impact on the spotted owl and on the old-growth trees.

Moreover, our Federal environmental laws call for a multiple use approach to the management of the national forests. At times it would appear that this fact is somewhat overlooked. I believe we must concentrate more on multiple use as we go about making our future decisions.

With that said, I look forward to the testimony of today's witnesses. Thank you.

Mr. VENTO. And finally, Mr. Darden, the gentleman from Georgia. Does he have an opening statement this morning?

Mr. DARDEN. I have no statement, Mr. Chairman.

Mr. VENTO. I hope you're prepared to go to the floor and defend the historic preservation of the Grant site.

Mr. DARDEN. The White Haven site. Yes, I'm prepared, fully prepared. [Laughter.]

Mr. VENTO. Well, that concludes the opening statements.

We're pleased to welcome Jolene——

Mr. CRAIG. Mr. Chairman.

Mr. VENTO. Oh, I'm sorry. I didn't see the gentleman. Mr. Craig, the gentleman from Idaho.

OPENING STATEMENT OF HON. LARRY E. CRAIG, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF IDAHO

Mr. CRAIG. Thank you very much, Mr. Chairman. You needn't apologize. I just slipped in at the last moment.

Thank you very much for an opportunity and I'll be very, very brief. You have a long list who wish to testify on an issue that is important and critical to this country, to our environment, to the Northwest, to our economy, and to our people. I hope we can discuss during the course of this hearing and develop a better understanding of what we're talking about.

I would suggest that the concept of old-growth might be ill-defined and to simply wave a magic wand and play an interesting

dance routine and now try to develop a concept of antiquity that is worth preservation is faulty at best.

It's important that we understand what we're doing in our overall management scheme as it relates to the environment, to the economy that has sustained us through our resource utilization and conservation over the years, and so what we discuss today is fundamentally important to all of us, but especially where we have large Federal forests for the well-being of that environment and the economy that it generates along with its positive environmental effects.

I would suggest that one of the things we have failed to do in the past, Mr. Chairman, is to prescribe public policy clearly enough to disallow the courts the opportunity of management. We now are in the process in the West, and across this country, where in our absence of effective and clearly defined public policy, we are allowing the courts the opportunity to be managers.

I've not yet met a judge who wanted to be a manager. Most importantly, I've not yet met a judge who could qualify as a manager of a Federal forest. And yet, we continually allow that to happen. I hope, in our effort today, we may more clearly define and ultimately produce a product that will disallow that process. Thank you very much.

Mr. VENTO. I thank the gentleman from Idaho. The gentleman from Washington, Mr. James McDermott. Dr. McDermott, do you have an opening statement today?

Mr. McDERMOTT. No, Mr. Chairman.

Mr. VENTO. If not, I welcome the gentleman. I know he's very interested.

We do have our colleague, Mrs. Jolene Unsoeld. Welcome, Congresswoman Unsoeld. Please proceed.

STATEMENT OF HON. JOLENE UNSOELD, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF WASHINGTON

Mrs. UNSOELD. Thank you very much, Mr. Chairman, and thanks to all of you on these two very important committees. You are the critical link in finding solutions to what has become a raging controversy over the management of our remaining old-growth forests. Your committees have the most direct interest and are best able to assist in forging the compromises necessary to solve these complex problems.

I trust that the hearings today will help you move toward long-term solutions, for what we do in the next few months to perhaps relieve the pressure is simply not going to be sufficient. We must keep our eyes on the horizon, focused on how we maintain both ecological values and a timber industry on into the future.

I believe that if Mr. DeFazio's district is the hardest hit, mine must be the second. So, we both have a burning interest in this issue. In the last few months, I have been meeting on this issue with people in my district who represent mill owners, labor, and environmentalists.

I am excited about our small working group and their commitment to long-term solutions. For even though some of those represented in this group are people whose jobs and mills are threat-

ened, they are not content to just look at getting enough timber to continue operating for the next few years. They want a 25- 30-year plan. And I agree with them, I believe that finding long-term solutions is very, very important.

These timber industry representatives' primary objectives are ensuring a stable and certain timber supply, providing community stability and protecting wildlife habitat, water quality, recreational opportunities, and other noncommodity values. Recognizing the priorities of opposing groups while simultaneously requiring that everyone work together to find a solution is important. Resolution of disputes involving these often-conflicting priorities should, to the extent possible, be based on consensus building processes and not on litigation or legislative sleight of hand.

The problem is serious and has been coming at us for a long time. We talk about the spotted owl being the basis for our difficulty now. It isn't. It represents a timber shortage that has been in the making for a long time. The owl has made us aware that the shortage is here sooner rather than later, but we've had mills closing for the last decade because of the timber shortage.

But new forestry practices and long-term solutions have to be emphasized over quick fixes that may only aggravate the future conflicts.

I would propose that we establish a policy of assuring that the public timber base be maintained. We have reduced the public land base for timber supply for good reasons, but have done nothing to attempt to replace the land base devoted to timber harvest. I believe that that is one of the directions we need to go. I intend to offer legislation in the next couple of weeks along those lines.

Yet another of our problems is our log export policy. More than half of the timber harvested from all Northwest lands is exported without any processing whatsoever. We are crying for jobs in the timber industry; but we are losing more jobs because of raw log exports, than we are for the spotted owl set-asides. The Northwest has been relegated, in recent years, to a tree farm for the Orient. We can't afford that. We must get every job possible out of utilization of our natural resources. So, we must consider the effects of log exports when we develop an overall solution.

But preserving ecological diversity and important habitat within the national forests is becoming increasingly important as we near the end of our supply of harvestable old growth. There's no question but that past land withdrawals, and future withdrawals for the owl, have eliminated a lot of the timber land base. These withdrawals have had—and will continue to have—a devastating impact.

However, while we need to find ways to maintain the harvest levels in both the short and the long term, it would be a mistake to think that the solution is rolling back wilderness designations or rolling over the Endangered Species Act.

The battle over old growth has so far been played out in the courts and the media. This approach has increased the adversarial nature of the dispute and made it more difficult to find common ground and sensible long-term solutions. We cannot afford to have an either/or decision on the old growth issue.

We need to find ways to accommodate both the legitimate needs for jobs, building materials, and fiber, and the legitimate need of preserving ecological diversity. It won't be easy. We need to encourage processes which help build consensus and accommodation wherever possible.

I would suggest that we develop several experimental consensus-building projects. We've started one within one of the national forests in my district. We need to find a way of funding and encouraging these experimental projects to work out both the short- and long-term solutions within smaller regions that the local people know best.

We've got to avoid the temptation of quick fixes because the monkey we may get off our backs for awhile is going to put a gorilla on the backs of those who come after us. We should not lose this opportunity to act for future generations, too.

One of the most intriguing approaches that I have heard about is espoused by Dr. Jerry Franklin. He is a 1959 forestry graduate of Oregon State University, chief plant ecologist for the U.S. Forest Service, public northwest research station, and the bloedel professor of ecosystem analysis in the college of forest resources at the University of Washington. He is in the audience, not on one of your panels. I hope you will take the opportunity to pick his brain.

His new forestry concept seems to provide an ideal blend of commodity production and ecosystem protection by moving away from division of the forest into single-use categories. It is a radical departure from clear cutting as we have known it, and is, I would suggest, real multiple use.

He would allow the removal of timber, but would leave standing live and dead trees to provide habitat for wildlife and eventually, organic debris that would enrich that soil. He would plan for a diversity of tree species and encourage a range of age classes similar to that which occur naturally.

Part of the funding which is being recommended elsewhere for spotted owl research and intensification of timber sales programs should be devoted to research and development of new forestry like that proposed by Dr. Franklin. We need to have research on the development of these new silviculture practices to make compatible commodity production of timber and retention of the ecological values.

We need basic research on natural forest ecosystems. There has been the wellspring of knowledge that has been developing in the last few years, but essentially all old-growth funding has been going into studies of the northern spotted owl and other wildlife species that use natural forests.

We've got to have basic research on the characteristics of old growth and other natural forest ecosystems, in addition to research on specific wildlife species in order to establish a basis for development of improved forest management systems.

Thank you, Mr. Chairman, for this opportunity to testify. It is my hope that these hearings will help set us on a course for long-term solutions—in addition to short-term relief—of some of the problems that we face both economically and ecologically in the Northwest.

[The prepared statement of Mrs. Unsoeld appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Jolene. I appreciate your pointing out Dr. Franklin's work. He will not be able to testify with us on Thursday with the Forest Service. He has been working very closely with the Forest Service and with others and he has directed that one of his colleagues, Dr. Thomas Spies—I think someone said he was a former student of his—testify, so his ideas will be presented.

I wish we could have had Dr. Franklin because of your recommendation and that of others, but apparently, his schedule did not permit it. The Forest Service wanted him to testify and wanted that concept to be presented as something that they had been working with. So, I think that the Forest Service is really looking into these ideas.

I have no questions. I think your advice with regard to long-term solutions is very appropriate. There have been some abrupt interruptions of timber sales because of court cases and the Endangered Species Act, but I think that that should not be a rationale to completely throw all the plans out the window and to move forward in an indiscriminate manner with regard to some of the sales.

We have time to pause and to work toward a long-term policy with regard to this, which has been wanting in this case. So, maybe out of this will come an overall plan that will accomplish many of the objectives of conservationists and of the people that work and need those jobs in your area and the areas of other members of the panel.

Do other members have questions of Jolene?

Mr. MARLENEE. Mr. Chairman.

Mr. VENTO. Mr. Marlenee.

Mr. MARLENEE. Mrs. Unsoeld, you made a couple of statements that raised my curiosity. You seem to admit in one place that there is a shortage of timber base to keep the industry running, did you not indicate that?

Mrs. UNSOELD. Yes. Would you—I'll let you finish your question.

Mr. MARLENEE. I wanted the—yes.

Mrs. UNSOELD. Because we've got to look at the timber acreage and the long term. We have many private woodlot owners who are harvesting and not replanting. That's going to be lost from our land base. We have put public lands aside for some other purposes. That is a loss to our land base. I want to find some real tax incentives to encourage independent woodlot owners to make that long-term investment.

Mr. MARLENEE. And getting, Mrs. Unsoeld, to your timber-base statement that you intended to offer legislation to expand that timber base. Could you give us a clue as to how that would happen?

Mrs. UNSOELD. One is some financial incentives for private woodlot owners to make that investment, that commitment. It takes a long time to grow a tree and it takes a long-term commitment to reinvest that land. So, I want to provide some financial incentives for that.

Where a private woodlot owner who harvests is not willing to reforest and retain that land in the timber base, then perhaps we need a revenue source to acquire additional public land for both

States and the National Forest Service that can be dedicated to harvest timber, harvest production.

Mr. MARLENEE. Did I hear you correctly? To acquire additional private lands?

Mrs. UNSOELD. Yes, you did. To replace that which has been taken away from the——

Mr. MARLENEE. And put those under the management of the Government agency?

Mrs. UNSOELD. Of the Forest Service, whose management of the timber resources has been very good. But they have had a reduced acreage in recent years for harvesting of timber.

Mr. MARLENEE. This tax incentive that you speak of would be applicable to private landowners? We've tried some of that in the Agriculture Committee and I commend you on your pursuit of that.

Would that also be available to Weyerhaeuser and Burlington Northern, Plum Creek and those types of corporations?

Mrs. UNSOELD. That is an issue we're still trying to resolve and while my legislation is not quite ready to be introduced, I think that from private woodlot owners' standpoints, that perhaps pursuing the inheritance tax may be one method that we would go because we're talking about investment in land for at least 60 years, probably 100, 125, even 150 years.

Mr. MARLENEE. Wait 1 minute. Weyerhaeuser does a very excellent job. Have you ever visited their plantations?

Mrs. UNSOELD. Oh, yes, I have, and I want to encourage them to be able to stay in that business. However, our new——

Mr. MARLENEE. Can they not grow a tree to harvest within 20 years?

Mrs. UNSOELD. I don't think that's a good tree. I think that's part of the practices that we're going to have to change, to extend the rotation cycle.

Mr. MARLENEE. Well, perhaps 30 years.

Mrs. UNSOELD. Not in the Northwest. It takes longer than that.

Mr. MARLENEE. Not on the plantations that I had observed, on the rotation. I thank you.

Mrs. UNSOELD. OK.

Mr. VENTO. Are there further questions of the witness?

Mr. DeFazio.

Mr. DEFazio. I'd just like to congratulate Mrs. Unsoeld for thinking about the whole timber pie because that's ultimately where the long-term solution, particularly for the timber needs of the next century, is going to come, not just from Federal lands. We can't just turn to the Federal lands and say, you must supply all the timber.

So, we may differ over some of the specifics of your proposals, but I congratulate you on the idea of looking both at incentives on private land, State lands, and the Federal because we are going to need the whole timber pie and we can't withdraw part and also congratulate you for raising the issue of log exports, which I hope we can get into in more detail in a future hearing in this committee or in other committees in Congress.

I'd make one suggestion for your tax incentive. We might put some limitations on the incentive in terms of capital gains and just make that available, big or small, to people who don't export logs.

Mrs. UNSOELD. Absolutely. That's part of it, Peter.

Mr. DEFazio. That might provide some incentive. And in response to my colleague from Montana, I've visited a lot of Weyerhaeuser plantations in my district—or I used to visit them before we went to war over log exports—but you can grow something in 30 years, but it's generally pulp quality or you may be able to get some small structural 2 by 4 sort of things in the small log mills.

But generally, we consider, on the west side, and I believe it would be the same in Washington State, even though it rains a little more up there—their weather isn't as good as ours in Oregon—about 60 years for a second growth of a structural sort of materials, and that's with improved genetics.

Mr. MARLENEE. If the gentleman would yield. You're contending that the timber that is grown within the 20- to 30-year period is really not good structural timber?

Mr. DEFazio. They may be able to cut a few 2 by 4 out of it, but you're not—I have a tree farm, too, and in 20 to 30 years, even on a site one or site two on the west side in Oregon, you're not getting great—I mean, you're getting large growth rings, but you're not getting real prime sort of material.

Mr. MARLENEE. A final question. Do you have any objection to exporting that kind of timber?

Mr. DEFazio. I object to sending any raw material overseas. I think we ought to sell the Japanese finished products, just like they sell us finished products.

Mrs. UNSOELD. Thank you, and if the people who are hurt most, who are facing foreclosure of their businesses and loss of jobs, if they want us to find long-term solutions, we can do no less.

Mr. VENTO. Well, I appreciate that. Jolene, you're welcome to sit with the committee—I consulted my colleagues—because I know this is important to your area. If you have the time and your schedule permits, you're welcome to join us at the dias.

The first panel today is Mr. George Frampton, Jr., the president of the Wilderness Society of Washington, D.C.; Mr. Jay Hair, the president of the National Wildlife Federation; Mr. Brock Evans, the vice president of the National Audubon Society; and Mr. Charles Raines is the Pacific Northwest regional vice president of the Sierra Club.

Their statements are all before us, and without objection, all the statements of witnesses today have been made part of the record, along with our opening statements, in their entirety.

Gentlemen, we've already used up 1 hour with my late arrival and our other comments this morning. So, you know that we'd like you to try and summarize your comments and then respond to questions. Please summarize within 5 minutes. We will use the light system that's here.

Mr. Frampton, please proceed. Welcome.

STATEMENT OF GEORGE T. FRAMPTON, JR., PRESIDENT, WILDERNESS SOCIETY

Mr. FRAMPTON. Thank you, Mr. Chairman, members of the committees. I appreciate the opportunity to appear before you on

behalf of the more than 300,000 members of the Wilderness Society nationwide. My prepared testimony basically makes three points.

Point one, the old-growth forests of the Pacific Northwest are a nationally and internationally valuable biological resource worthy of protection. I'm not going to spend a lot of time on this. I think 10 years ago, perhaps even 5 years ago, we might have gotten an argument over that proposition, not today.

Scientists now recognize that the ancient forests of the Pacific Northwest are probably America's most biologically diverse temperate zone ecosystem, and we do recognize the biophysical and ecological importance of these forests today, as well as the economic importance of the forests, not just for habitat, but for people; not just for this generation, but for future generations; for fisheries, for clean air, for clean water, for recreation, for solitude, for scenic beauty, for scientific opportunity—for people.

To put this in perspective, since World War II, as my statement notes, we have lost about 15 percent of the Amazon rain forests. In this century, in the Pacific Northwest, we have less than 15 percent left of the ancient old-growth forests which originally covered those two States. We have liquidated more than 85 percent of the endowment of this forest that we originally had.

My second point is that there is even less, much less ecologically significant old growth left than we have been led to believe over the past few years by the timber industry and the Forest Service and other agencies.

About 18 months ago, the Wilderness Society realized that the critical factual base—here we are arguing about whether we can save old-growth forests and if so, how much—but the critical factual base necessary to make intelligent public policy decisions about that issue is totally missing.

The timber industry will say there are 8 or 9 million acres of old growth in the Pacific Northwest, it's virtually inexhaustible. The Forest Service will say—and is continuing to say—there are 5 or 6 million acres. The Wilderness Society set out to do the first scientifically valid, credible inventory of how much old growth there really is in Oregon and Washington and where it is and map it.

We assembled a team of ecologists. We set out to use only the Forest Service's own timber inventory data, computerized data. We used a definition developed by the Forest Service's own scientists and generally scientifically accepted. And we set out initially to study, inventory, and map old-growth forests on 12 national forests in Oregon and Washington on the west side of the Cascades, basically, the Douglas-fir forests.

We have completed our inventory of 9 of the 12 forests. You can see on the chart the results. The Forest Service draft plans for those forests claim there was about 3.5 million acres of old growth based on a series of different, rather ad hoc definitions. Employing a scientific definition in the Forest Service's own timber inventory, we show no more than 1.5 million acres of old growth on these nine forests.

Overall, although our inventory for the region has not been completed, we estimate there is probably about 2.4 million acres of old growth left. Of that, 800,000 acres is in parks and wilderness areas;

the remaining 1.6 million acres not protected in any system to date.

Now, I understand from the program witness list that Chief Robertson may be unveiling a new definition of old growth this afternoon. With all due respect to the Forest Service, I'd like to say that we have been using their scientists' definition and we have been applying it for the last 18 months.

The third point that my prepared testimony makes is that saving a substantial amount of old growth, we believe, is in the best interests of the region and the country, both economically as well as ecologically. Now, there are short-term and long-term aspects to that and you'll hear about those aspects from other witnesses, including two additional witnesses from the Wilderness Society.

But basically, the long-run problem is perhaps the most important one because we are moving in the Pacific Northwest through a transition from an old-growth timber economy to a second growth timber economy.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Frampton appears at the conclusion of the hearing.]

Mr. VENTO. Thank you for your testimony. Mr. Jay Hair, president of the National Wildlife Federation. Jay.

STATEMENT OF JAY D. HAIR, PRESIDENT, NATIONAL WILDLIFE FEDERATION

Mr. HAIR. Thank you, Mr. Chairman.

In addition to my remarks today on behalf of the 5.8 million members of the National Wildlife Federation, I would like to point out to the committee that prior to joining the staff of the National Wildlife Federation, I was a professor of forestry at North Carolina State University and do have some practical experience in the intensive management of forest ecosystems, as well as an understanding and appreciation for their importance in the maintenance of biological diversity.

I will very quickly summarize my comments because I think these issues that we need to talk about are well-known by this committee. I would like to make a few points.

First, the National Wildlife Federation is very concerned about the conservation of forests and associated habitats worldwide. There has been an enormous amount of public attention given, particularly in the last few months, about the issues of global deforestation. We've heard a lot about the loss of tropical forests, particularly in the Amazon Basin.

How much forests and forest habitats are we losing worldwide? The most salient way that I can tell you what it is on a cumulative worldwide basis is to tell you that we are losing the equivalent of one football field every second of forested habitat, losing it forever in terms of its values for forests and those species of fish and wildlife and the humans that depend upon the resources derived from it.

One of the issues that continues to frustrate many of us on either side of this particular complex issue is the simple fact—we don't know how much of the ancient forests in the Pacific North-

west are left. That is, to me, an astounding admission of how little attention the U.S. Forest Service has given to gathering the information that is needed.

If there's one thing that we ought to be able to agree on in the near term it is a definition for ancient forests. We ought to all agree upon the fact that everyone's interest is best served if we intensify the process of inventorying the ancient forests so that we, for the first time, know exactly what we're talking about.

In terms of definition, ancient forests are not just old trees. They are large living trees. They're multilayered canopies. They are large standing snags, as was pointed out earlier. Some of those snags have been standing before this Nation was founded. They are vitally important to the functioning of those ecosystems.

There are also large downed trees. Logs, 50 tons per acre or more, crisscross the forest floor. They provide a number of functions, not the least of which is holding soil in place on very steep and fragile slopes. Ancient forests are simply the richest biologically and most complex of all the forests in the Pacific Northwest. At least 118 vertebrate species are dependent upon them as primary habitat.

There are a number of estimates of how much of the ancient forests has already been cut. There's a number of estimates as to how much is remaining. There can be no doubt about the fact that most of it is gone. All we're going to do is refine how much we have left to save and to properly manage.

Finally, I don't believe that we can maintain a double standard for the management of our forest resources and what we expect other countries to do. The United States is not struggling with the pressing socioeconomic and demographic factors that are driving the destruction of the Amazon forests. It is hypocrisy of the highest order to expect the Brazilians and other developing people to respect our admonitions to manage their natural resources wisely when we are unwilling to halt the destruction of much of the last 10 percent or less of our remaining ancient forests.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Hair appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Jay. The next person is Brock Evans, vice president of the National Audubon Society. Brock, welcome.

STATEMENT OF BROCK EVANS, VICE PRESIDENT, NATIONAL ISSUES, NATIONAL AUDUBON SOCIETY

Mr. EVANS. Thank you very much, Mr. Chairman. We very much appreciate the decision of both chairmen to hold hearings on what we consider to be an extremely important issue, too. With the thought that a picture is worth 1,000 or 10,000 words, with your permission, Mr. Chairman, I'd like to offer some material to graphically illustrate what we're talking about and what we feel is at stake today while I speak. I'll be very brief with my statement.

Essentially, I make three or four points in the statement. First, we discuss what is at stake from the perspective of the 600,000 members of the National Audubon Society, and I'm coming back to that in 1 minute.

Second, without going into it again, I have an analysis based on the best available information to try to answer the question of how much is left. Our analysis is that in the east side and west side forests in Washington and Oregon, one-tenth of what there was is left right now.

Then we have an analysis, again based on the best information so far, to help you deal with the question of how much really is protected. I'm sad to say that it's not, in our view, one-half or one-third or one-fourth. It's more like one-fifth or one-sixth and there's some analysis of that, too.

Finally—and I want to touch on this a little bit longer because the last part of my testimony points out that we believe that there is a win/win way out of this. We know the issue seems very controversial right now and it is certainly in the Northwest, but we believe that if you look at the whole wood basket of supplies available out there, private lands, exports, public lands of all kinds, there are a variety of things to do.

We in the Audubon Society want to see a strong and healthy and vibrant timber economy there in the Northwest forever. It's a part of the economy and a very important part of the culture as well.

We think if you look at age classes of trees, for example, from 60 to 200 years before you get to be called ancient forests, there's about 107,000 billion board feet of that on public lands alone which could be dealt with. We have had consultants look at other possibilities in other national forests and I can dwell on that more later on.

But in any event, we just want to emphasize for the record here, Mr. Chairman, that we think there is a way out which can preserve most of the ancient forests that should be protected and yet guarantee to the wood products industry a strong supply forever as well.

Finally, I want to return, as I conclude, to the first part of my statement to set it in context. I want to dwell a little bit on the concept of antiquity. You're going to hear a lot about wildlife and biology and the unique qualities of the ancient forests and that's all true.

But I do believe that the concept of antiquity is one of the most well-understood of all the—and I want to say for the record here, too—the life of our Nation as one American people isn't very long in the history of this planet, about 200 years. But the ancient forest with its great trees and intricate web of life that we're talking about here today doesn't even begin to take its unique form until the trees are about as old as the American Republic.

Two hundred years is the youngest of any of the forests and their associated trees that we're talking about here today and you see the picture over there from the Blue River Ranger District, I believe, in Willamette National Forest in Oregon.

These trees go beyond the time of the Pilgrims and the Mayflower. They go beyond the arrival of Columbus, beyond the Hundred Year's War, beyond the Magna Carta, beyond even some of the time to Emperor Charlemagne in the ninth century. When the Forest Service permitted the logging of the Millenium Grove in Oregon a few years ago, our scientists counted rings on the trees nearly 1,000 years old, about the time that Ethelred the Unready

was trying to keep the Danes out of England. He didn't do a very good job of it either, I should observe.

But it's not just the great age of the trees that makes the ancient forests so unique. The actual forest itself in which the giant trees grow—some of them 8-feet thick and 200-feet high—is, as you know, made up of a dynamic ecosystem with a very complex and interlocking web of unique plant and animal communities that stretches, in itself, back far beyond our Middle Ages.

This American ancient forest has survived undisturbed far back beyond the time of the Romans, beyond the time of Christ, beyond the time of the Greeks and Solomon, beyond the time of the Egyptian Pharaoh Ramses, beyond even to the time of the first known Emperor, Sargon the Great of Sumeria 4,000 years ago. That, Mr. Chairman, is how long these forests have survived, essentially undisturbed.

We think it's important to state all these things at the very beginning and put the antiquity of our ancient forests in context because we think the decisions you may make from these hearings are some of the most fateful in our Nation's history.

We're not just talking about big trees or the spotted owl or rare and unique plants. We're talking about something truly old and very ancient. We're talking also about something uniquely American because the remnants and fragments of these once vast ancient forests are now found only in the remote valleys and the ridges of the Cascade and Coast Ranges of Oregon, Washington, and California.

You're going to hear much evidence presented to you in these hearings about timber volumes and board feet and jobs and that's as it should be. You're going to hear other evidence about rare and unique wildlife and vanishing ecosystems and alternatives to liquidate the forests and that's as it should be, too.

But to summarize, we just want to leave you with two basic points. First, these are not just ordinary trees in ordinary forests. They are unique on this Earth. And second, that at the present rate of logging, it will not be 50 years, or 30 or 20 or 10 until the last of these forests are destroyed.

We urge you to do what we have done and fly over these forests and take a look for yourself. Then I believe you will come to the same conclusion that we have come to, that within about 5 years, all the remaining unprotected ancient forests will be so fragmented and cut up by clear cuts and logging roads, that there will be literally nothing left.

We found this out through our mapping program and other witnesses will present that to you later. We believe that the Congress must take action because the agencies will not and we'll come back to more of that later.

Thank you very much for your time.

[The prepared statement of Mr. Evans appears at the conclusion of the hearing.]

Mr. VENTO. Thank you very much.

The next witness is Charles Raines, the northwest regional vice president, Sierra Club. Mr. Raines.

**STATEMENT OF CHARLES RAINES, VICE PRESIDENT,
NORTHWEST REGION, SIERRA CLUB**

Mr. RAINES. Thank you, M. Chairman.

I'm Charles Raines, regional vice president of the Sierra Club and on behalf of our half million members nationwide and 20,000 members in the Northwest, I'd like to thank you for this opportunity to address the two committees.

I've lived in the Northwest, in Washington State, all my life and I've spent considerable time, along with my fellow volunteers, working on the old-growth issue, trying to find a resolution to this.

Today the club comes before your committees with an approach of how the old-growth forest controversy might be resolved. First, I'd like to give you a few assumptions that we feel underpin this approach.

The old-growth forests are an essential and valuable natural resource in their own right and the preservation of this resource ought to be an important goal for our society. The ultimate preservation of that old-growth forest, however, depends upon Oregon and Washington having a healthy economy which includes a sustainable and reasonably sized timber industry.

Mr. Chairman, the communities which have traditionally been linked to the logging of national forests have valid concerns about the effects of changing forest management. Though we may differ on our assessment of the scope of those effects, let me assure you that we agree that those concerns need to be addressed.

The timber industry in Oregon and Washington is in the midst of an enormous transition, which creates dislocation and stresses, much of which is caused by factors other than old-growth such as automation, log exports, and conversion to other uses such as urban development.

The long-term community stability of these areas is dependent upon economic diversity, just as ecological stability is dependent upon biological diversity. Efforts to broaden the base of economic activities in these communities needs to be a cornerstone of the resolution process.

It is clear that the Forest Service and the Bureau of Land Management will not reach timber management decisions which lead to an acceptable balance that will assure the preservation of the old-growth forest ecosystem. Neither are the Federal courts, the forum in which this issue can be ultimately resolved.

Congress must grapple with and ultimately resolve these land use controversies. We want to help your committees and the congressional delegations from Oregon and Washington in the task of finding a process for resolution.

Despite the lack of adequate inventory, we know that the old-growth forest is in trouble. Work needs to be accelerated to complete that inventory and additional biological research. However, we believe that we can start making some decisions based on the information that we now have and set up a process that allows us to continue to make decisions as inventory and biological research work continues.

We cannot, however, complete this task in the absence of obtaining that additional information. A portion of the timber supply will

continue to come from our Federal forests, but the level of timber sales will have to be substantially less than historic rates. But this base level of timber must be complemented by efforts to increase production from nonindustrial forest lands and restriction on log exports.

By broadening our perspective to include all elements of the potential timber supply, we have the ingredients to meet the timber supply needs and protect our ancient forest legacy. The pressing issue is how to assure a short-term timber supply to those mills that are most in need while we work our way through a resolution process.

We would suggest the following points as a place of departure for such an effort. First, to fulfill the requirements of the Endangered Species Act, National Forest Management Act and others, Congress should establish a multiyear process to decide which ancient forest tracts should be permanently protected and which do not need to be retained to meet the goals of the above-mentioned acts. This process would allow all parties to engage in discussions that would provide for timber and preservation needs in a manner that would provide a greater degree of certainty for all.

It should establish a process for determining which communities and mills are most vulnerable to short-term timber supply interruptions. Conservationists would agree that for a 2-year period, they would help determine areas of the national forests and BLM lands that could provide a reasonable timber sale level.

Congress should enact legislation to allow States to restrict the export of unprocessed logs from lands that they own and restrict the practice of direct and so-called third party substitution from Federal lands.

Congress should instruct the Fish and Wildlife Service to monitor such a process established above and report on whether or not that process will continue to ensure the protection of the flora and fauna dependent upon the ancient forest ecosystem.

Simultaneously, Congress should address the issues of long-term timber supply that is less dependent upon logging of Federal forests, including incentives to increase production of timber from nonindustrial forest lands and purchase a cut over corporate lands to add to the national forest system timber base.

We are ready to discuss this framework and other elements that we have identified as being part of the necessary overall package to maintain our ancient forest ecosystem and a viable timber industry in the Northwest.

Thank you, Mr. Chairman.

[The prepared statement of Mr. Raines appears at the conclusion of the hearing.]

Mr. VENTO. Thank you for staying within the time.

I noticed that we've been joined by the distinguished Chairman of the Agriculture Committee, Chairman de la Garza. Mr. Chairman, did you have any words of wisdom for the committee or questions of these distinguished witnesses? Welcome.

Mr. CHAIRMAN. Thank you, Mr. Chairman, and we welcome you to the Agriculture Committee.

Mr. VENTO. Thank you.

The CHAIRMAN. The only words of wisdom I have are, there ought to be a way to resolve this issue. I think Mr. Evans said that there is a way that agreement could be reached. I hope that this hearing, Mr. Chairman, and the witnesses that you have listed, will give us a better insight than what we have on the issue and the conservation of these majestic forests is certainly of great importance to us.

Any one of God's creatures that's endangered and—at some time, I remember, I read it in a book and I don't know if I can paraphrase it—but when the last of the species is gone, then this world has to die, another be born, before we have another such one. We don't want that to happen.

Naturally, economic viability for an area is of great importance also. You can have the majestic forests and the creatures of the Lord but man cannot survive unless there is economic viability. So, my wise words are, there ought to be a way to resolve the issue.

Thank you, Mr. Chairman.

Mr. VENTO. Well said, Mr. Chairman. We'll proceed with questioning then.

Mr. Frampton, I'm very pleased to note that all of you commented about trying to resolve this controversy and that the courts aren't the proper forum. Obviously, there is not agreement on whether we have adequately defined the amount of old-growth forests in the Pacific Northwest and what constitutes old growth.

The principal concern right now is that the forest management plans, the way that they're constituted, did not address some of the biological diversity issues such as the spotted owl. The issue, however, is more than just the spotted owl. That became the cause celeb here, but really it's more than that, isn't it, Mr. Frampton?

Mr. FRAMPTON. Well, there is now, Mr. Chairman, a substantial amount of old-growth timber under preliminary court injunction, but as a litigator, I know well that court injunctions can perhaps change the landscape and the incentive for solving problems, but they don't, in and of themselves, provide positive solutions to problems.

Hopefully, this will not be a barrier, but an opportunity for all of us to look at how we can save a significant amount of the remaining biologically important old-growth and still have, as we believe is important and doable, still have a strong, viable timber industry in the Pacific Northwest.

We think that can happen. In the long run, let's say 25 years from now, the timber industry is going to be different in the Pacific Northwest because there isn't going to be any old-growth timber economy. We'll have gotten to the point where there won't be any more mills cutting primarily old-growth timber. All the old-growth timber will either have been set aside or cut.

So, we are going from point A, which is today, to point B, 25 years from now, a second growth timber economy, smaller employment, more efficient, productive mills and the only question really is whether we're going to get there on one path or another.

Are we going to get there on the path that liquidates all the old growth we have left, or are we going to get there on a path where when we get to point B, we'll have that second-growth timber economy and we'll also have a significant amount of old growth left.

We think there are ways to get to point B on the path that leaves us with a better future, economically and ecologically, a future with a lot of old growth, and a sustainable timber industry. I think that's the challenge to all of us. The court injunctions aren't going to achieve that. Maybe they provide the impetus to us to get it done.

Mr. VENTO. Well, it's a question of pushing someone off a cliff or having a soft landing. We have to get to the point where we're not going to be cutting the old growth.

But to read about this issue, you'd think there was nothing other than the spotted owl, but there are many species of fish and wildlife that depend on old growth as well. In other words, the old-growth stands not static or sterile. They are useful as they are in terms of the diverse nature of the economy in any case. Isn't that correct, Mr. Frampton?

Mr. FRAMPTON. Well, we do believe that not only is the old growth ecologically important for more than the owl, but economically important. It is part of the economic future of the region and we have to look at this in the broadest possible way. The spotted owl has become a symbol and perhaps a tripwire, but it cannot be a solution to the problem.

Mr. VENTO. Well, you've all offered very good testimony and we will study it very carefully.

Mr. Volkmer, did you have any questions of the witnesses?

Mr. VOLKMER. Yes, thank you.

I appreciate the information, Mr. Evans, that you have included in your testimony about the amount of old growth on wilderness areas and, of course, I guess, none of us know for sure how much is there, but I appreciate that.

Mr. Frampton, in your inventory that your Wilderness Society is now doing, are you including old growth in the wilderness areas also?

Mr. FRAMPTON. Yes, Mr. Chairman, we are. On these nine west-side forests in Oregon and Washington, where we have completed our inventory and are beginning to map the old growth, the 1.5 million acres that we found are relative to 3.5 acres that the Forest Service says are there. That includes wilderness areas on those forests as well. That's inclusive of wilderness and nonwilderness.

Altogether, in Oregon and Washington, there are about 6.6 million acres of national parks and wilderness. We estimate that in that 6.6 million acres—and I say estimate because we have not done a scientific inventory like we have in these forests—we estimate of those 6.6 million acres, there are about 800,000 acres of old-growth forests.

The timber industry, I saw last week, estimates that there are 4.4 million acres of old growth in parks and wilderness. For this to be true, 2 out of every 3 acres of the national parks and wilderness in the Pacific Northwest is old growth. Well, there aren't 2 out of 3 acres of forests in these areas.

More than half is rock and ice, for starters. So, that gives you a little bit of the dimensions of the problem, which is that there really is quite little ecologically significant old growth protected to date in these types of areas—parks and wilderness areas.

Mr. VOLKMER. All right. Now, if we come up with a solution, one of the solutions would be to manage the old growth separately in our forest plans, et cetera, would you want those plans to include provisions basically that no old growth would be cut from hereafter?

Mr. FRAMPTON. Well, Mr. Chairman, I can't answer that because the problem is that we don't know really how much there is, where it is, or what condition it's in, so we don't know what the economic and other consequences are of cutting it. I think our position has been, we desperately need to get a good, credible set of facts.

Until we have those, we ought to concentrate, in the next year and a half, on completing the inventory and the mapping and doing the kinds of economic studies that we're doing to figure out what the economic and job consequences will be of protecting all the ecologically significant old growth.

In the meantime, we should do everything we can not to cut it before we decide whether to save it. So, we should be redirecting and we can be redirecting the timber program for the rest of fiscal year 1989 and fiscal year 1990 to alternative sources. There are 13 billion board feet under contract, but not cut, on public lands in the Pacific Northwest.

There are some important commercial thinning opportunities. There is a process going on now to identify nonbiologically significant old growth that can be cut in the next 1 or 2 years while we get the facts necessary to make some long-term decisions.

I would hope that the information we will get will enable us to conclude that we could save all of the biologically significant old growth over the next 10 or 20 years at least, and still find substitute sources of supply for the timber industry. But we can't say that right now because we simply do not have the facts on the basis which we need to make these decisions.

Mr. VOLKMER. When you say biologically significant old growth, are you meaning old-growth stands where there's a fairly large acreage of a stand that brings on the other plants and the animals, et cetera?

Mr. FRAMPTON. Clearly, the larger undisturbed or unfragmented areas are likely to be more biologically important, but it is also possible that there are smaller fragmented stands in areas where we can begin to bring back mature forests in the vicinity and build, over the decades, new old-growth forests that are also important.

So, I wouldn't restrict it only to large, roadless or unfragmented areas, but I think that we're going to have to obviously make some trade-offs here in the short-term and we don't have the information, the basic inventory information, to make those decisions on and that's a terrible admission of failure on the part of all of us—the conservation organizations; with all due respect, the Congress; but primarily the executive agency, the Forest Service, the BLM and the States—that no one has undertaken to get—as Jay said earlier—the basic information that we need to make the decisions simply isn't there.

Mr. VOLKMER. Not yet.

Mr. FRAMPTON. Not yet.

Mr. VOLKMER. Right I agree.

Mr. FRAMPTON. We certainly hope that the committees will do all that you can to provide the funding and provide the arm-twisting to the Forest Service and the BLM to get the job done because we are talking about an issue that involves many jobs and hundreds of millions of dollars to the region and of great importance to the country and we don't even have the basic factual information to make intelligent decisions.

Mr. VOLKMER. I agree that we need additional information.

I would like for anyone on the panel that wants to—if none want to, don't do it—from one who's not from the area, from the Midwest, and from my discussions with members who are from that area, it appears that the present situation—there's quite a bit, I guess, of trepidation by those within not just the industry, but loggers and everybody else about the recent decisions that have taken place in the Northwest.

Anyone want to address that? Give them any calming influence or anything or are we going to continue to hear that they're all upset and worried about their jobs, and the economy is going down the drain?

Mr. EVANS. Maybe I should, with your permission, tread where angels may fear to tread, Mr. Chairman, because I'm from the Northwest myself, as Charlie is, we are both from the Seattle area and this is my home, too, until I've been here.

As I said in my statement, the wood products industry is, to us, northwesterners, a very important part of not only our economy, but of the culture, the lifestyle, the way of life of our Northwest, and there's no desire or intention on the part of environmental groups, as we go about our efforts to—I would have to say, require the agencies to obey the laws that this Congress has passed.

There's no intention to eliminate or shut-down the industry and I'll state this out loud because I've heard those statements. I ask my industry friends why they say that and they say, well, you have these lawsuits and so on and we try to assure them that what we're talking about here are specific living places with real values in them—trails, campsites, the habitat for rare species and so on.

That's why I mentioned that the Audubon Society has done its own mapping program in cooperation with the Wilderness Society. We also are trying to rectify the failure of the agencies to find out how much is there so you can answer these trade-off questions that you all have to answer.

But what we found out is, first, there's a lot less left than we had thought, but second, there's a lot of other opportunities. We located, for example, something like 107 billion board feet of trees on the national forests, in region 6, in age classes between 60 and 185 years old, which could be thinned—commercial thinning, precommercial thinning, all the rest.

There are down sides to this, I hasten to add, but that's also wood and it's a wood supply. It's a way, as Charlie said earlier, to help meet some of the short-term concern as we're protecting the other values on our forests.

I finally want to say that in response to these concerns, that industry has raised, we have set about a process of our own. We don't have unlimited resources or unlimited professionals, but on the Willamette National Forest in Oregon and in Congresswoman Un-

soeld's district, our representatives have looked at areas and we have located what we believe are significant volumes of public forest lands which could be made available without real concern to the ecological values we're talking about.

We would like to continue this process. We would like to sit down and negotiate with those who are most fearful of what's going on. We would like to assure them they need not be fearful of this. We think it's in their interest, as well as our interest, to work this out together instead of in a confrontation way.

I only want to say that a process is now ongoing in part. We'd like to expand it.

Mr. McDERMOTT. Mr. Chairman.

Mr. VOLKMER. Yes.

Mr. McDERMOTT. Would the gentleman yield? I think to expand on this whole question, the State of Washington negotiated a timber/fish/wildlife agreement which both Mr. Evans and Mr. Raines were part of to stop litigation on State lands. It is possible for us to negotiate a settlement here, I think, and I think there is some hope for the economy of the Northwest.

Mr. Raines' testimony, although he didn't read it in full, I would commend to the members, has the outline of a way to negotiate a settlement to this and bring it back into some kind of basic agreement. Now, it is not a spotted owl issue. It really is a basic economic, ecological issue that will be solved only by negotiation, not by having courts decide it.

Mr. RAINES. Mr. Chairman.

Mr. VOLKMER. Yes, Mr. Raines.

Mr. RAINES. Those of us from the Northwest are really aware of what the situation is out in the communities. I've spent a lot of time over the past few months talking with people in the timber industry to get a better understanding, although I will tell you that my grandfather came from Missouri to work in the woods, in the lumber industry in Washington State. As a matter of fact, my other grandfather worked in a sawmill all his life in Virginia.

So, we're not new to the timber industry and I don't think they're rolling over in their graves that I'm standing here before you today.

But let's put it in perspective. As far as what have we done in Washington State, which I know best, with our timber land that came along with statehood a 100 years ago. We have taken about 10 percent of that forest land that could be managed for timber and cut it once and converted it to agricultural uses and urban uses. That may have been a good decision, but that has been taken out of the timber base.

We have taken perhaps 10 or 12 percent and put it into parks and wilderness areas and preserved it, mostly in the mid- to upper-elevations. At least 70 percent of the timber land that was there is still available and is being managed for timber and we're looking at perhaps the last 5 to 10 percent that we're arguing over.

If we have 70 to 75 percent of the timber base we started with, I think that's the basis for a sustainable forest industry in our State and that we can provide long-term jobs for these communities. What we have to do is look at the communities that are really affected. The State as a whole, we have a strong timber base. We

need to look at those communities that are most affected by any changes on national forest timber management.

Mr. VENTO. I thank the gentleman.

Mr. MORRISON. Mr. Chairman, I think I'll save most of my questions for later on. Just a comment would be that we need, in our area, we need injunctive relief—that is, relief from injunctions and I think that as I've worked particularly with Mr. Raines and Mr. Evans, that I get a feeling that when they say there is a way out of this, that they've demonstrated, in fact, that there is. I think this hearing can be very helpful. As I said earlier, let's get understanding out of this since we don't have answers and we can't find that relief.

My hope is, as both of you have indicated to me personally, that there's a problem within the preservationists community because you could, collectively as organizations, decide on a path that we would follow and agree to it, but there are always some folks out there that still might provide those legal challenges.

Would you support, if we did reach agreement—congressional mandate—that those legal challenges be terminated?

Mr. HAIR. Let me respond to that because I think any mechanism that eliminates the right of an individual to address their grievances before the courts should be strongly opposed on the matter of constitutional principle.

Mr. MORRISON. Even if it terminates the rights of others to keep communities alive, potentially keep jobs?

Mr. HAIR. Well, that's a theoretical question that's difficult to answer in the abstract. When you phrase it like jobs, sure. I mean, who wants to go out and be in favor of eliminating jobs, but I think the important point is not to try to figure out how we cut off all of the access of people to address their grievances before the courts, but how it is, in fact, we go about building real consensus on a direction to go forward.

This is a fairly classic example where rhetoric has overwhelmed reason, but I do hear a lot of good ideas coming out of the environmental community that are reasoned and well-thought, and would allow the process to go forward. It allows a consistent supply of sustainable timber to be presented to those dependent communities.

I've been involved with this thing for so many years and have spent so much time with the industry in the Pacific Northwest, but I don't see the same level of reason yet coming from that side. Maybe it's because I'm not listening properly, but I don't think that now is the time for Congress to start putting together legislation that in fact abrogates the constitutional rights of citizens.

Mr. VENTO. Would the gentleman yield to me?

Mr. MORRISON. Sure.

Mr. VENTO. I think one other aspect is if we jump forward with legislation, it would mean that the existing forest management plans would be the operative vehicle. Is that correct? They would follow those guidelines. We make the sales and the issue would be over in the sense that we would then be cutting the old-growth areas that have these other resources. Is that correct?

Mr. FRAMPTON. Could I respond to that, Mr. Chairman?

Neither of the existing forest plans which are based on 15- or 20-year old information or the draft plans that have been issued

really cope with the old-growth issue in any credible way. Congress could, theoretically, attempt to impose a set of forest plans on this overlay. But I would submit to you that that would be giving up on the possibility of reaching some kind of a strategy that's in the best interests of the region and the country that balances the need to save some old growth and to have a healthy long-run economy. It would be abrogating the possibility of that.

I think that two things that are very important to establishing a process here have happened within the conservation community, regionally and nationally, in the last year that these committees should be aware of.

First, we have all made major efforts to put together a single coalition—regional, national, local coalition—that can speak more or less with one voice on this issue and can try to get together with all other interest groups and develop positive solutions.

Second, you are seeing coming out of the conservation community, as Jay and Brock mentioned, a lot of very constructive ideas about how to make the transition, complete the transition from an old growth to a second-growth economy, how to use private forest lands more effectively, how to deal with log exports, which is the primary strain on timber supply in the Pacific Northwest.

The principal strain on timber supply has nothing to do with the spotted owl, nothing to do with the spotted owl relative to log exports. Four billion board feet a year of logs and jobs being exported every year. We're the only country in the world now that does it at this volume.

Ideas about how to structure incentives for more value added products to be produced in the Pacific Northwest. There are a lot of good responsible ideas coming out of this community that can be picked up on here, I think. Those are important new developments.

Mr. VENTO. Mr. Morrison, do you have any further questions?

Mr. MORRISON. May I ask Mr. Evans to respond?

Mr. EVANS. Mr. Chairman, I didn't want Mr. Morrison to think we were ducking this question, so I'd like to try to respond to it a little bit, too.

In the past, the National Audubon Society, and perhaps other groups, as we've negotiated with the Forest Service on various forest plans—one in Illinois comes to mind—have bound ourselves not to appeal after a settlement has been reached where all the parties have agreed to it. My personal view on this would be the same sort of thing.

If we are really able to have a real negotiation, which I think Congressman Morrison is really referring to, and a real settlement where all the parties sit down, then in my personal view, everything should be on the table, including what he just said.

I recall two examples in our State, Congressman, the Alpine Lakes Wilderness and Mount St. Helen, which you participated where in fact the major parties did sit down face to face and negotiate a settlement, if you will, in those areas. Congress affirmed it and in effect, the peace has been kept pretty much in those years because there was a genuine negotiation, genuine face to face, and parties bound themselves.

Whether our organization could bind other organizations is a real problem, as Jay mentioned, how do you do all that. I know

you're aware of that, but I just think—I want to say for the record that if we have a real settlement in it and it really satisfies things, I think everything should be on the table.

Mr. MORRISON. My time is way overdue. Thank you, Mr. Chairman.

Mr. VENTO. Mr. Marlenee.

Mr. MARLENEE. Thank you, Mr. Chairman, and I welcome the panel. I know that we've had our differences in the past and will continue to have them in the future.

Mr. FRAMPTON, could you briefly tell me what old-growth forest is? Describe it to me for the State of Washington and the State of Montana.

Mr. FRAMPTON. Well, I think they're very different and I don't profess to be a technical expert. You're going to hear from ecologists from the Wilderness Society and other groups later on today about the question of definitions.

But in the Douglas-fir region west of the Cascades in Oregon and Washington, what we tried to do was simplify a very complex, scientific definition to get four or five key characteristics that we were looking for and then apply those characteristics to the existing timber inventory, computerized timber inventory.

Those characteristics involve primarily the age of trees. For example, so many trees per acre over 200 or 180 years old. The size of the trees.

Mr. MARLENEE. That would be different in the State of Montana.

Mr. FRAMPTON. It would be different. The number of dead trees or snags standing, the amount of woody debris on the ground—those are the principal characteristics. We looked to find all of those characteristics and if we did, then we called that old growth. We had to simplify it a little bit because the timber industry—the inventory data only cataloged those things.

Mr. MARLENEE. My point is, there is a difference between the two areas, between the different types of trees, the species of trees, but it's subject to some evaluation and a different evaluation by different groups.

You stated that many and much of this old-growth timber was then wilderness areas, did you not?

Mr. FRAMPTON. I stated that to our best estimates at this point, there are about 800,000 acres of old growth in wilderness areas and national parks in Oregon and Washington, which is about one-third of all of the old growth that appears to be there on all public ownerships in those two States.

Mr. MARLENEE. And that these were very essential. You indicated that these were very essential, which leads me to the question of, do you support a natural burn policy?

Mr. FRAMPTON. Well, we have very consistently in the last year supported natural fire management for Yellowstone and other Rocky Mountain area forests and as appropriately applied, most of the other national forests and national park areas in the country, yes, we have.

Mr. MARLENEE. In wilderness areas?

Mr. FRAMPTON. Fire, particularly in the old-growth forests of the Pacific Northwest, is a very important historical force and those forests are extremely resistant—the old-growth forests are ex-

tremely resistant to fire, which is one of their important values that's often overlooked.

The experience of two summers ago in the great fires in Oregon and northern California was that it was the plantations that went up first. The old-growth forests tend to be very resistant to fire in that part of the country.

Mr. MARLENEE. Well, it may surprise you to know that I do support efforts and your efforts to try to preserve some of the old-growth forests.

Mr. Hair, we don't often get an opportunity to sit across from each other here and I welcome you. You stated that a football field a second is lost forever.

Did you not, as the National Wildlife Federation did, sell 350 football fields for \$8.5 million, as National Wildlife Federation staffers have stated? That it was sold to a developer for \$8.5 million to finance litigation driven by 17 attorneys that you have on staff? It's quite understandable to me that you would say that any action that cuts off access to the courts must be opposed.

I have three different articles. You're aware, I think, of the *Regardies* article, of which you were subject, and Claude Moore was the subject of, plus the *Outside* story, plus the *Wall Street Journal* editorial of April 25, 1988, and November 11, 1987.

What are we going to do about all the litigation that comes from your organization?

Mr. HAIR. Well, let me first address your first points. I'm disappointed, quite frankly, that you would bring an issue that has nothing to do with this particular hearing, forward at this time. I must admit that it's not inconsistent with the manner in which you bring issues forward and I will acknowledge that the National Wildlife Federation did, in fact, sell that property for the amount you specified.

The Supreme Court of Virginia indicated that we were absolutely and correctly within our rights. We created with that money the largest endangered species fund of its kind in the world.

As far as it being used to sponsor litigation, absolutely zero of it went for that purpose. As far as the intentions of the National Wildlife Federation to pursue litigation in the future, if you think we're active now, you haven't seen anything yet.

Mr. MARLENEE. I've understood that. I've understood that you've told some of the loggers in the Northwest that you will have them out of the forests in a—

Mr. HAIR. You've understood incorrectly, Congressman. We've never said that.

Mr. MARLENEE. I'd like to have your statements corrected.

Mr. HAIR. I'd like to have you point out where those statements were made because that is absolutely incorrect. If you want to bear bait, if you want to talk about ideology, let's do that, but I thought the purpose of this hearing was to find solutions and you're obviously not wanting to do that, Congressman. That's very typical. I understand that's your mode of operation.

Mr. MARLENEE. Dr. Hair, please, please, let's not raise the hair on the back of your neck. We were talking about preserving football fields and you're coming in here and talking about preserving

forests and it's a little bit inconsistent with your own personal actions.

Mr. HAIR. I disagree with you.

Mr. VENTO. The time of the gentleman is expired.

Mr. Jontz.

Mr. JONTZ. Thank you, Mr. Chairman.

Mr. Frampton, I am very appreciative of your efforts to take on the task of mapping and inventorying old growth and I presume you did that because the Forest Service was not?

Mr. FRAMPTON. That's correct.

Mr. JONTZ. Well, can you explain to us at the present time, what the Forest Service is doing?

Mr. FRAMPTON. Well, I'm not sure they're doing much. As a result of some preliminary discussions and hearings that were held last year, and with the assistance of some members of the committees, the Forest Service was given \$500,000 in fiscal year 1989 to accelerate their inventory of old growth, which I think was on about a 4- or 5-year schedule, although I would stand corrected by the witnesses from the service you will hear tomorrow.

It does not seem to us that they have taken that very far in more than half a year to date. I don't know what their time schedule is. They did do a completed inventory on the Willamette National Forest, which did confirm that there's no more than three-quarters of the amount of old growth that their original draft plan said that there was.

But clearly, they are not on a timeframe to do this by the end of next year and that's when we need the information. I have heard it said by the Forest Service that to do this job by the end of fiscal year 1990, they need \$15 million. Now, I'm not sure why it should cost them \$15 million to do what the Wilderness Society is doing for \$150,000, but if that's what it's going to cost them, so be it.

We desperately need this information and we need to have the Forest Service and the BLM to get some instructions from Congress to get on it and get it done, and that doesn't appear to be happening right now, to the best of my knowledge.

Mr. JONTZ. When you say the Forest Service hasn't taken it too far, can you be a little more specific with us in terms of your understanding about what they have done and what they have not done with that \$500,000?

Mr. FRAMPTON. I cannot. My understanding is that they are going forward with inventories on a number of these forests, but they are still, in some cases, several years from completion. I'm not sure what definition they're using. I understand that Chief Robertson is going to come here with a new definition tomorrow.

If they have a new definition, I don't know what definition they've been using for the last couple of years. But the definition that we have been using for the last 18 months is their own scientists' definition.

It's a widely accepted definition and I think that one of the things that's happened in the last few months is that if you read "Science Magazine," the scientific journals, the Fish and Wildlife Service's own spotted owl report, you will find that basically, the experts, the scientists are saying that the Wilderness Society now has better data than the Forest Service.

The Fish and Wildlife Service itself concedes that. Indeed, we, together with Audubon, which is also doing mapping, have, I think, to date the only scientifically valid, credible base of information about where these forests are.

Mr. JONTZ. Well, would you care to speculate as to what the problem is in terms of the Forest Service moving forward expeditiously?

Mr. FRAMPTON. Well, it would be speculation, but the Forest Service has never wanted to identify old growth as a unique resource, separate from the entire timber base. The Forest Service and the BLM have consistently put their heads in the sand on this issue and hoped it would go away and hoped that the Federal laws like the Endangered Species Act and the National Forest Management Act wouldn't really be applied and somehow this would all get solved.

But it hasn't gone away and now the owls have come home to roost and the Forest Service is just about 10 years behind in compiling an information base. They're working here out of a tradition that has tried to ignore this problem, not address the problem and I think some of the momentum of ignoring it is still working here and their effort needs to be jump-started in a very positive way by these committees.

Mr. JONTZ. I do have one additional question.

As a result of the completion of the mapping and inventory of nine forests in Oregon and Washington, you identified 1.5 million acres of old growth?

Mr. FRAMPTON. Yes. On six forests, those results have been published; the other three forests are in draft form; they haven't actually been formally published, but they have been reviewed. So, on the nine forests as a whole, where the Forest Service said in its draft plans, that there is 3.5 million, we've identified 1.5 million.

Mr. JONTZ. They said 3.5 in their draft?

Mr. FRAMPTON. They said 3.5 and we said 1.5. Differences are due, obviously, to using the scientific definition, but also to our beginning to use aerial photography, up to date aerial photographs—in most cases, they're the Government's photographs—to identify areas that may be counted by the Forest Service as of 10 years ago, but have been logged since then.

The Forest Service's data do not reflect a lot of acreage that's been cut in the last 5 to 10 years.

Mr. JONTZ. Well, you anticipated my question, which was what the reasons are for the differences between the two and I appreciate that information. It will give us something to ask the Forest Service about when they appear. I appreciate the patience of the chairman. I think my time is probably expired.

Mr. VENTO. The important point here, Mr. Frampton, is that the Forest Service is basically using the same consulting scientists that you used in terms of your work. Is that correct?

Mr. FRAMPTON. They are now beginning to use their own scientists, but that hasn't been true in the past.

Mr. VENTO. Well, I would hope that that would translate into less disagreement. This 3.5 million acres, Mr. Volkmer reminds me, did include wilderness; is that correct?

Mr. FRAMPTON. That's correct. The 1.5 million acres that we've identified on these nine forests includes some acreage that's in wilderness areas in these forests.

Mr. VENTO. Well, the difference for the members is the 3.5 million acres that the Forest Service identified and 1.5 million acres that you've identified. I think that's obviously a significant difference in terms of what then drives policy.

Mr. DeFazio.

Mr. DEFazio. Thank you, Mr. Chairman.

I'd like to go over a little bit of the Wilderness Society testimony on page 3 first, when you talk about the 800,000 acres of old growth national parks, wilderness areas, research, and natural areas in State parks.

Have you compared that to the industry figures regarding those same areas and can you account for the discrepancy? Is it a definitional discrepancy? Is it that they're just including other areas that are timbered than those? I hear fairly consistently they talk about a large portion that are off limits for all time—well, nothing is for all time, not even a wilderness area or a park—but you're saying 800,000 and their numbers are around 4 million.

Mr. FRAMPTON. I have read, Congressman, that the industry spokesmen have said that there are 4 or 4.4 million acres of old-growth timber on the 6.6 million acres of all national parks and wilderness areas in Oregon and Washington. I think that 4.4 million acres is more land than has trees of any kind. So, I cannot account for the discrepancy, except to suggest that that's an exaggeration.

Mr. DEFazio. How about in—and I'll ask the industry the same thing—how about in order to begin this dialog, which I think needs to begin, that it's in an industry white paper that came out in Oregon that perhaps your group and the industry groups sit down and compare data bases and statistics on that and try and see who's right, or if we can find some agreement on a number somewhere in between.

Mr. FRAMPTON. Well, I think that's a good idea. We've been pressing for that, but I would suggest that the critical difference is not how much is in parks and wilderness areas, but what is left in national forests and BLM land that is available for timber operations, but is also the subject of possible protection.

Mr. DEFazio. Well, we'll get to that, too, but I'm just saying, as we confront these discrepancies in data, I would like to confront them and not come 2 weeks or 2 months or 1½ or 2 years from now when we're doing some permanent legislation and still have one group saying there's 400,000 and one group saying there's 4.3 million with great certainty. That's just a reflection on—that's all. I'll help expedite that process as best I can.

When you talk about the difference in inventory on page 4, I guess my question would be, what about—take the Willamette National Forest, for instance, where using an enhanced or a different definition where we're down from 640,000 acres to 300,000 acres. Now, all that difference is not accounted for in land that's been harvested. I assume it is in mixed stands, stands that don't meet the definition and that.

What is your wish or prognostication for those 340,000 acres? Is it your desire that the 300,000 acres which meet the strictest terms of the definition—is that your objective, to protect those and what about the other 340,000 acres that the Forest Service's 21-inch and greater definition says is old-growth? What would you do with those 340,000 acres? Would those be available for harvest under the planning process?

Mr. FRAMPTON. Well, I would say this. Our principal objective and I think I speak for my colleagues, is to try to protect the 300,000 acres that we've identified as ecologically significant old-growth, at least over the next few years while we try to determine whether there is a long-term strategy to protect that 300,000 acres forever and still mount a timber program that provides for a sustainable, viable timber industry.

I don't know that we know enough right now to know that we could take 300,000 acres of the Willamette National Forest out of the timber base forever. We don't know enough about what the economic and job consequences of that would be. We won't even begin to look at that unless we have good maps of where it is and we can compare that to mills and we can begin to look at what the alternative sources of supply are.

I think that that's the kind of information that needs to be developed and our position is, let's try as hard as we can, if possible, to put the ecologically significant old-growth that we've identified, push off 1 year, 2 years, 5 years cutting it while we see if we can develop a long-term strategy to save as much of it as possible.

Mr. DEFazio. But the other 340,000 would be available for general forest purposes?

Mr. FRAMPTON. Some of that may be important riparian areas or—

Mr. DEFazio. No, we should not ignore the other.

Mr. FRAMPTON. I think for the most part, we are concentrating on trying to protect ecologically significant old-growth areas.

Mr. DEFazio. OK. And this is a question that I'll ask other members of the panel. On page 8, you talk about the second scenario, as soon as we decrease logging in national forests by 25-percent immediately.

From your testimony, it's not clear to me, are you talking about harvest, are you talking about a 25-percent reduction in the allowable sale quantity? What are you using? Are you using—at one point, you mention 6.7 billion, as I recall, for the average harvest over a 10-year period. Are you talking about a 25-percent reduction from the 6.7 that's on page 7 of your testimony? Reduction from what?

Mr. FRAMPTON. Well, the author of the rather extensive study that this cites will be a witness later on, Mr. Olson, but just to give you a sense of what we did, we used the Forest Service's computer model and we assumed that if you were to try to protect all the ecologically significant old-growth over a long period of time, that that might result in an immediate 25-percent decrease in the historical or 10-year average cut level on national forests in Oregon and Washington on the west side.

We assumed that decrease in harvest level would occur immediately and continue over the 40-year horizon of the study. As a

result, you get some substitutability from private land because the price goes up, so some of that you get back, and then you look at the 40-year time horizon.

What the study shows is that the main job effects that are going to occur under any of these assumptions are going to come from automation and from a decreasing supply of timber from private lands, that whether you keep historic harvest levels from the national forests at the same point for 40 years or decrease it 25-percent, you get——

Mr. DEFazio. Right. But 25 percent from, you're saying, the historic average?

Mr. FRAMPTON. I believe that's correct——

Mr. DEFazio. So I won't go ask Mr. Olson. If Mr. Raines, in particular, deals with what I consider to be probably the solution we're looking at here, which is some sort of interim timber supply, 18 months or 2 years, and then a long-term solution on page—well, your pages aren't numbered.

But in your testimony, one of your three points under outline for resolution is, conservationists would agree that for a 2-year period, they would help determine areas in national forests and BLM lands that could provide a reasonable timber sale level for the region of Washington and Oregon.

Could you give me a number, as I was trying to get out of Mr. Frampton?

Mr. RAINES. No. We do not have a number. What we're willing to do is to sit down with each national forest, look at the map so we can determine where the forests are, where are the other stands of timber that could be logged, and try to work with them for a timber sale program that there's agreement on, that there's consensus on, rather than the Forest Service, in their usual form of putting out a timber sale program and saying, either take it or appeal it.

And that's why we get into the confrontational, adversarial situation we've got today. I don't know what number that might come up with, but I feel that if every time we can agree on one timber sale, we've made one step forward and that we'll continue to put effort into that to try to find a timber sale program that meets as much of the needs of the local communities as we can.

Mr. DEFazio. Well, if you could——

Mr. VENTO. Your time has expired.

Mr. DEFazio. Well, I'll have a second——

Mr. VENTO. Do you have a concluding——

Mr. DEFazio. Well, I needed to follow up with him and I wanted to ask Mr. Evans the same question. I'll wait until the next round.

Mr. VENTO. Mr. Panetta.

Mr. PANETTA. Thank you, Mr. Chairman.

It's always a little difficult when Congress decides to meander into this kind of controversy. This is obviously a serious conflict between the environmental community and the timber community in that part of the country. I think the best guidance I've always had is to walk lightly with some trepidation when you're trying to see if there's a way to resolve it, because my experience with these things is that if both sides decide to pursue it to the end, there aren't any winners. And the environmental community will suffer

as a consequence if a lot of people are hurt in that part of the country.

On the other hand, the industry will also have been hurt by virtue of their position. That appears to be the case right now. I guess the only way I can see it resolved is if there's a willingness on the part of all of the parties to sit in a room and try to resolve it. I take it that's the general tone, at least, of the testimony you're presenting.

Let me ask you this. Is there sufficient information available right now to be able to resolve this issue? At least from what I'm hearing, that's not the case.

Mr. RAINES. There is a distinct lack of information, that's to be sure. However, we feel that if we put a great effort, in the next few months, into working with the Forest Service and industry out on the ground, target those areas where we can do the best we can to come up with that information and make some short-term decisions that people can feel comfortable with, we may have to defer a number of decisions until we do get that additional information, but we're committed to putting the effort into finding some short-term solutions and getting the information we need for those decisions as quickly as we can.

Mr. EVANS. If I could just speak to that, too, Congressman. It's a good question. Audubon's mapping program, which was intended to elicit a lot of this information on all the national forests in these two States, plus three or four of them in California, will be about nearly complete by the end of this calendar year. Now, that's our information and we used the Forest Service's basic data and that would be a good start—just to answer your question.

In some places, it's already there. In some places, I think we can make that kind of decision if we were all willing to sit down together and we can, sort of that way, step by step and place by place edge into Congresswoman Unsoeld's long-term solution, which we all agree has to be done in the long term as well as the short term.

I think the information is basically there in some especially hard-hit areas, both environmentally and economically to make a decision in the next few months. The rest of it can come over time, but not too long of a time.

Finally, if I can make a quick point here, too, I want to clarify the matter of the 800,000 acres that is protected, because I did an extensive analysis in my own testimony that I couldn't speak to, Mr. Chairman, about the 800,000 acre number based on my personal observation.

I've hiked and walked through most of these wilderness areas and I named a few places that were included in the old-growth volume base by the Forest Service inside a wilderness area, but I walked through it. Like Milk Creek in the Glacial Peak Wilderness in my State 2 years ago and it has almost no big trees in it at all. It's not that kind of forest at all, but it's part of the timber base.

That's the basis for my conclusion that the actual number is probably a lot less than 800,000 acres based on some other specifics I gave. I say that only because I didn't want the committee to leave with the idea that we all agree that it's 800,000 acres even. It's a lot less than that. But I do think we can arrive at a solution using these figures that we already have.

Mr. PANETTA. But my impression is that there isn't a definitional agreement with regard to old growth. You have one definition of old growth and the Forest Service may very well be coming in with another. You don't even agree as to the basic definition. How do you develop the information you need to have a consensus?

Mr. EVANS. That's a good question. I would only point out that we've been using the standard definition used by Forest Service scientists in their published report, which maybe we should submit for the record.

What happened with the Forest Service—and an Audubon witness will point this up later, Mr. Sisco—is that they expanded the definition to include everything that was called suitable spotted owl habitat.

In other words, it just didn't meet the definition of ancient forest. If an owl lived in it or was seen in it or had part of its life cycle in it or might have some of its life cycle in it, then that was also added and that accounts for what we consider to be their greatly inflated definition. But we're using basically their scientists' definitions.

Mr. PANETTA. Is there agreement that you could identify at least the areas that don't even come close to anybody's definition of old growth and allow those timber sales to proceed?

Mr. RAINES. Yes, sir, I think that we can. When we get out on the ground and look at—on the ground. That's the essence of this issue. You have to be out on the ground. We can talk about numbers all day long, but you really have to take a look at it on the ground—the elevation, the aspects, whether it's near water, how large an area it is, what's the surrounding terrain like, what the surrounding forests are like.

Each of these factors has a great deal to say in how that ecosystem operates and so what we really need to do is get out on the ground and look at the areas while we're amassing the data on a broader scale.

Mr. PANETTA. Well, I don't disagree with that, but somebody had a number here of 1.5 million acres being identified as possible old growth. Is the balance of that then timber that could be subject to sale?

Mr. EVANS. Again, it depends on the other values, as Charlie said, if it's near streams and all the rest of it. But we're talking about ancient forest here and protecting ancient forest. So theoretically, anything that's not ancient forest is available for sale, assuming other environmental constraints that we all agree with here.

I wanted to observe that Audubon has already performed this process of looking at other areas that could be made available for sale and harvest that don't affect these vital ecological values and we came up with a considerable volume in the one place that we looked. We're confident that if we did this elsewhere, with the cooperation of Congress and industry, we could find a lot more. It's there.

Mr. PANETTA. If I could just ask procedurally, you have a hearing that's scheduled before the court sometime in August; is that correct? There's a circuit court hearing?

Mr. EVANS. I don't know the exact date now. It's been postponed, I think, from June 30 into sometime in July. Unless you have new information, there has been no new trial as yet set. It's pending the consultations of the two agencies on the Endangered Species Act, I understand.

Mr. PANETTA. Last, has there been a point at which all the parties have been gathered in one room to try to find a resolution to this issue?

Mr. RAINES. There have been several occasions where different players have been together. I wouldn't go so far as to say all the players, but we have sat down with owners of timber mills, labor, environmentalists, to try to get a better understanding and see whether we can move ahead. I've felt really positively coming out of those meetings, that we can get to the point where we can start to talk about substantive decisions.

This is a tough process. There are no quick fixes. It's going to take a long, arduous process through the summer and maybe beyond to try to sort it out. We're committed to putting the effort into making that happen.

Mr. PANETTA. Is it your view that Congress ought to stand aside until we see whether the parties are able to resolve this issue or is it your feeling that Congress ought to take action on this issue?

Mr. RAINES. I think Congress should carefully consider the actions they take. Some of them will be happening today in the Appropriations Committee, for instance, in terms of the timber sale level and the budget for things like State and private forestry, which could help the woodlot owners manage their timber better.

There are a number of things that Congress can be doing. There are also a number of other arenas where action can take place and I would hope that we'll be able to pull them together so we have a thoughtful conclusion to this, rather than quick decisions made.

Mr. EVANS. Can I just add one point to that, Mr. Congressman? We really are before you because we feel the agencies are not protecting this resource and will not protect the resource. They may say differently on Thursday, but we wouldn't be here if we thought they were doing a good job of protecting these interests.

They are not and in 5 years, as I said in my testimony, it's basically all going to be gone by the way we look at it. So, the Congress is their boss. You can give us redress. We'd rather not go to the courts. We've had to go to the courts to require the agencies to obey the laws that the Congress has passed. If there's another way out of it, that's all to the better, but that's why we're here.

Mr. PANETTA. Thank you. Thank you, Mr. Chairman.

Mr. VENTO. Mr. Craig.

Mr. CRAIG. Thank you very much, Mr. Chairman. I'd yield very briefly to my colleague from Montana. Can I underline briefly?

Mr. MARLENEE. Very briefly.

Mr. Chairman, I'd like the record to clearly show that at the end of our discussion, Mr. Hair stated, "If you think we've been a litigant in the past, you ain't seen nothing yet." I shall assume he was taking an official position of the National Wildlife Federation promising to tieup sales or plans for that.

Mr. HAIR. And let me add my addendum to that. When we have the kind of ideological excesses that you represent, Mr. Marlenee,

we have no options except to go to the court and so your attitudes are driving us to the courts.

Mr. MARLENEE. You were involved a long time, if the gentleman would yield, a long time in litigation before I ever came on the scene. And you may get angry and you may point the finger at me, Mr. Hair, but I am neither intimidated by your anger or by your association or by your position as the head of the Wildlife Federation.

Mr. HAIR. Nor are we intimidated by yours, sir.

Mr. MARLENEE. I don't mean you to be.

Mr. CRAIG. Reclaiming my time.

Thank you very much, Mr. Chairman. I had to step out of the room during the course of the questioning, so I'll be limited because very likely, some of the things I may ask have already been asked by others.

One of the things that is frustrating to me in the process of trying to arrive at a solution—and I think my colleague, Mr. Pannetta, also mentioned it, is the lack of concern for a negotiated settlement. Case in point, region 6 where the Forest Service settled on a herbicide issue—where it resulted in a court suit and then agreed on all parties.

It looked like we were going to come out of that one with a working proposition and now I see that we've got five groups that have filed an appeal—Earth First, and others, and we're right back in it again.

I guess the biggest problem we have here is a negotiated settlement is not a solved problem by any means.

One of the problems we get into and I think Mr. Frampton mentioned it when he talked about a constitutional right to litigate Federal timber sales, I think it's important that the record show that Congress granted that privilege through the Administrative Procedures Act and although citizens of this Nation can take direct course, I think one of the things we have to be concerned about, as we move toward a solution, when we know that negotiated settlements sometimes never really work because there are parties—and I'm not accusing anybody at the table of being party to what I am about to say.

There are parties that do not want to arrive at a solution and we have to recognize that and this Congress has to be aware of that. There are parties who would prefer it be in court for ever because they do not want any human activity on the land for whatever reason.

Now, I would suggest that all the men that are at this table are men of good faith who recognize a need for human activity, along with the need for certain types of preservation. But I think one of the things that really frustrates me is that we grant open access and by our very granting, we see that this is very successfully used to block certain actions that are clearly public policy and intent of this Congress.

I think that the intent in the Endangered Species Act, because I know we're constantly referring to the States of Oregon, Washington, and northern California, is that the spotted owl for you is the gray wolf for us and all kinds of things will happen the moment a gray wolf is spotted in Idaho. So, we're looking toward a solution.

Brock, you mentioned a concern over what is an actual base of old growth. Mr. Frampton has specifically said that so far in the States of Oregon and Washington, you have identified by use of Forest Service definition, at one point, 5 million acres; is that correct?

Mr. FRAMPTON. That's correct.

Mr. CRAIG. My frustration comes when I look at your organization, Mr. Evans, and I believe you and your local chapters are currently involved in a variety of lawsuits in relation to the spotted owl, that encompass how many acres of old growth?

Mr. EVANS. I don't know the total acres, Congressman. I do know that the acres actually enjoined under the *Seattle Audubon Society v. Forest Service* lawsuit were 18,000 acres of immediate sales, maybe another 10,000 acres more under this year's sales program. Those were the specific terms of the injunction. I'd be glad to furnish you more specifics on it any time.

Mr. CRAIG. Our records show upwards of about 3 million acres.

Mr. EVANS. That's news to me, but I'll take your word for it for this discussion and try to clarify it later.

Mr. CRAIG. I guess my frustration then is in the numbers game. We have the Forest Service's EIS and for spotted owls they have identified about 2.5 million acres as spotted owl habitat in Oregon and Washington. I have assumed that by definition, although that borders on the fringe areas, where the owl may have a fly over, but that's supposed to be old growth, is it not?

Mr. EVANS. It's probably—it sounds to me like what you're describing is what has been described as suitable owl habitat. That may be the term of art we're using here. Without knowing the details on the ground, that may be what the Forest Service has said.

Our research and our own mapping program certainly doesn't think there's anything like that left. Now, granted, we pointed out in previous testimony before the Appropriations Committee, Congressman, how the Forest Service has, in our opinion, inflated and expanded the definition beyond any point of what really is old growth or what really is suitable spotted owl habitat.

Mr. Sisco, coming along later, is going to illustrate to you and these committees what we call mobile SOHA's, where they locate spotted owl habitat areas where there are no owls, there aren't basically any trees, and they call them that. That may be part of the problem of numbers that you and I are talking about here.

Mr. FRAMPTON. Perhaps I could clarify that issue a little bit.

Going back to the draft forest plans, the Forest Service did not use its own timber inventory. It did not use any single or any scientific definition of old growth to make its initial determination of each draft forest plan. Each forest used a different method of estimating old growth and none of the 6 or eight different methods used bore any relationship to a scientific definition.

In many cases, they simply took the entire timber inventory available on the forests. That's how they got to their 5.5 or 6 million acres, in the draft plans for all of the national forests in Oregon and Washington.

Now, much of the same lack of any credible definition at all has infected the spotted owl management guide EIS. In other words, while the Forest Service tried to begin to look in a little more de-

tailed fashion at how much of this 5.5 million acres is really spotted owl habitat, they didn't arrive at their 2.5 million acreage figure by using a scientific definition.

Their numbers are infected with the same problems that infected the initial draft plans. So, what they've got is some kind of hodge-podge, a combination of figures from different forests, some of which may be based on a really credible attempt to look at spotted owl habitats and some of which may not.

So, the spotted owl EIS figures are just as ad hoc as the draft forest plan figures. The reason is, to go back to the very beginning, that they've never had any kind of a systematic program to look at old growth or spotted owl habitat as a separate valuable resource. They've just never done it.

Mr. CRAIG. Thank you very much, gentlemen. Thank you, Mr. Chairman.

Mr. VENTO. There's an indication by some members that they want to ask further questions of the panel so let me begin.

I tried to stay within the time that we have and there's a lot of interest here, but one of the points is that the existing forest management plans just do not come to grips with the whole concept of old growth and its preservation, other than the fact that it's protected de facto because some of it is within wilderness areas.

But the plans just don't come to grips with old growth. The consequence is that we are now hung up here on a different law. We've got conflicting policies in a sense. We've got the forest management plans that may be under appeal. Are these forest management plans in place now or are they being appealed?

Mr. RAINES. Almost all of the plans in western Oregon and Washington are in draft stages now.

Mr. VENTO. I think it's very important to understand that because the plans have got a long way to go in terms of the appeal process. So, this is just the beginning of the process and the plans did not really adequately address this particular point.

When do you weigh in? Do you weigh in after the process? If you're losing 60,000 or 100,000 acres a year of old growth, by the time you permit the process to work, there wouldn't be anything left to argue about. It's important to understand that an inadequacy has occurred here without proper guidance by Congress.

There's a real void in terms of information that affects hundreds, indeed thousands of different species. We're talking about a very special cycle in terms of the biomass of the temperate rain forest.

I think you're saying that we've got to compromise, but what's the format? I listened to Mr. Raines say, well, we could sit down and decide, essentially, which areas would be OK to cut in and which aren't. Well, I think that is all right if we all have confidence in Mr. Raines or any conservation group.

But I think what the Congress does is to give this to professional land managers to make these types of decisions. We then have some sort of a system where there's accountability. If decisions are not made properly, then we can question it.

But when you talk about extra wood and other types of available timber here, right now, for instance, the sales have been stopped, but that is not impacting on jobs right now today, is it? Mr. Evans.

Mr. EVANS. Well, it depends on where you are. I'm certain that other witnesses could certainly say there are definite places that it has. How much that is because of the drying up of supplies of public timber, how much from log exports that aren't there or whatever, I don't know, but I'm sure—certainly there are places that are being affected right now. I just don't know the extent of it.

Mr. VENTO. But in other words, in the long run, you'd have to assume that those sales are needed within weeks or within months in order to keep mills at full production. Is that what you're saying?

Mr. EVANS. Well, we have asked for a list of mills that are going to be out of their supplies within the next few months with the hope of getting our folks into those areas first and trying to work something out. Some mills have a lot under contract, they can go a long time. Some do not. It varies from place to place.

Mr. VENTO. Well, one of the problems is that the Forest Service just can't regurgitate a new forest management plan and make available millions of board feet of lumber overnight, isn't that correct?

Mr. EVANS. They no doubt will say that, Mr. Chairman, when they're before you on Thursday, but we can all cite examples and our experts could of times when they've moved very, very fast when they want to. These fire salvage sales and so on, they can really come up with plans in, relatively speaking, a hurry. So, they may say it takes 5 years to do it, but we can give you evidence that it does not.

Mr. VENTO. Mr. Volkmer.

Mr. VOLKMER. I believe—and I don't remember for sure which one addressed it—but one of you in your statement addressed the problem of old growth nonexistence in places where it has been before, such as on privately owned lands in Oregon and Washington; is that correct?

Mr. EVANS. Right.

Mr. VOLKMER. And State-owned lands?

Mr. EVANS. I said that, yes, sir.

Mr. VOLKMER. And in British Columbia?

Mr. EVANS. Yes.

Mr. VOLKMER. Are you sure about there not being any old growth in British Columbia?

Mr. EVANS. No. I know there is old growth still in British Columbia, but the policy of the British Columbia Government is essentially that it's all allocated to liquidation. I would love to give you chapter and verse of all the efforts made by British Columbia conservationists. Since that Government is in power and not likely to lose power, it's reasonable to make the extrapolation that that old growth is like—it's like the areas in our national forests in the Northwest.

They say they take areas out for stream-side protection and scenic protection, Mr. Chairman, but as long as they're in the allowable cut base, they're all going to be logged someday. That's why, to us, that's not a relevant figure.

The same way in British Columbia. These trees may still be standing, but they are probably under what they call a timber license. They're sold to some company already or are allocated and

they're going to be cut someday. If we could somehow wave a magic wand over the Government of British Columbia and urge them to protect it, then I would certainly be willing to revise my statement. But it's not the case. I've spent a lot of time up there.

Mr. VOLKMER. Well, the reason I ask that is another question which has been discussed a little bit here and I really didn't want to get into it too much because if there wasn't any old growth in British Columbia, I was wondering what the spotted owl was doing up there.

Mr. EVANS. Fair point. It's still there on borrowed time, I would say.

Mr. VOLKMER. All right.

Mr. VENTO. Mr. Jontz.

Mr. JONTZ. Nothing.

Mr. VENTO. Mr. DeFazio had a second round.

Mr. DEFazio. Thank you, Mr. Chairman. I'll try and be brief. I know we have a lot of other witnesses.

Just to return to the question I was pursuing earlier, I just wanted to give Mr. Raines one more chance here on trying to come up with a number. He's had a little time to think about it. I don't know if you can give me a number or not, but if we are talking about an interim period, do you have a target? If you can't give me a number on what you think could be aggregated that would not come from biologically significant intact stands of old growth that you wish to avoid during that interim period, can you give me a target number?

Mr. RAINES. Congressman, you're right. I cannot give you a number based on where we think we might be able to find stands of timber because we haven't put that information together. We have suggested to the Appropriations Committee, however, that we feel that a maximum 3.9 billion board feet is an appropriate figure for this next fiscal year. That's based on the draft forest plans, minus the departures.

We're not saying that that is the figure that ought to be, but it certainly should be no higher than that.

Mr. DEFazio. Mr. Evans, what do you think about that number?

Mr. EVANS. Well, the 3.9 billion is what we had testified and prepared data on—put the data together in January and February, Congressman, before the injunctions came out and before the affidavits and scientific information about suitable owl habitat came out. When we received that information, we submitted new material to the Appropriations Committee last month, which came up for a revised total of 3.764 total volume, I believe. That, we believe, is a really sustainable number taking all these values into account.

I think ultimately if we had a really good process here, and I agree with you that it's going to be difficult to do, we could sit down and arrive at a number which may be higher or lower, if we could look at it area by area and place by place.

Ultimately, I believe that the best and longest term solution in everybody's interest in this issue—industry's and ours and everybody else's—will be to look at them place by place and determine the needs of each place, and that's how you finally get at a sustainable number which I think would stand forever.

Mr. DEFazio. So, we weren't talking about a bridge, you know, a 2-year supply while working on a long-term solution. That's your guesstimate or estimate of a long-term sustainable harvest off of Forest Service lands in region 6?

Mr. EVANS. Right. I think I see your point now. If we're talking also about interim, which we want to talk about, too, it may be possible to have a higher level for the next while, but we certainly would like to work with you and others in helping direct those sales and where they go. Where they go is crucial, as you know.

Right now the agencies are, in our opinion, following a policy of high grading and creaming the unfragmented blocks of forest which are the most richest and valuable for wildlife and biological and recreational purposes. We feel it's very important to steer this agency away from creaming these places and fragmenting them and ruining them and into other places that they already have done this to.

That's why, Mr. Chairman, we have concern. We understand the needs of the Congress to turn the process over to someone, but in our view—and I have to say it publicly—this is not an impartial agency. This agency has made up its mind what it wants to do. Basically, it wants to cream these places and it's not going to protect them.

Mr. DEFazio. Thank you. Mr. Chairman, if I could just comment on one thing you said on my time? There is an impact on jobs. You have to take the numbers, first of all, the 13 billion I think was a little high in terms of timber under contract at the beginning of the year. The number is down considerably.

Now the injunctions are impacting this year's program disproportionately because the Forest Service has no flexibility and mills have different amounts under contract and I have a particularly public timber-dependent industry in my district and there are mills—in fact, a mill in my hometown just laid off some people this last week.

It impacts different ways. There are some mills that are just going to be out of timber very soon. There are other mills where the price has gotten so high because of the shortage that it's not economic. So, there are different—it's very complex, but there is a job impact today.

Mr. VENTO. The gentleman is going to have to assume the chair in a minute because I have to go to the floor. I'm just trying to understand the impact of this. There's a lot of timber under contract for prospective sales. There are differences between the various contractors and what to use it for. For instance, some are being sold without being milled.

The gentleman's time, of course, has expired. I wanted to permit our colleague, Mrs. Unsoeld, under unanimous consent, to proceed if she has a question or two of the panelists. I'm going to ask Mr. DeFazio to assume the Chair at this time.

Mrs. Unsoeld, do you have a question?

Mrs. UNSOELD. No, Mr. Chairman.

Mr. DEFazio [acting chairman]. I thank that panel and move on to panel two. Mr. Douglas Stout, Bohemia; Dr. Larry Irwin, National Council for Air and Stream Improvement; Ms. Ann Goos, execu-

tive director, Washington Commercial Forest Action Committee; and Mr. Wes Hedstrom, Hedstrom Lumber Co.

**STATEMENT OF DOUGLAS STOUT, VICE PRESIDENT, LANDS AND
TIMBER, BOHEMIA, INC.**

Mr. STOUT. Thank you, Mr. Chairman.

My name is Doug Stout. I'm vice president of land and timber for Bohemia, a publicly owned forest products manufacturing company headquartered in Eugene, with mills in western Oregon and northern California.

I appreciate the opportunity to testify today on the subject of management of old-growth forests. It is a critical issue in the west. I would like to introduce the industry overview panel by sharing with the subcommittees our overall perspective of the old-growth issue.

Subsequent panel members will speak to the nature of the debate over the old-growth resources, the economics of the forest products industry in the Pacific Northwest, and the economics of the industry and importance of our forest land base from the broader perspective in terms of global, economic, and environmental concerns.

Generally, all of the charges being levied by the environmental groups involve: One, alleged threat to the last of the old growth or so-called ancient forests. I think we've got a problem in definition there, that old growth and ancient forests, as they describe, is really two different things. And two, an immediate threat to the well-being of the northern spotted owl, recently proposed for listing as a threatened species under the Endangered Species Act of 1973.

The environmental community openly admits that the northern spotted owl is really a surrogate for the protection of old-growth forests, but the issue does not stop there. The concern over the wellbeing of the old-growth forests is itself a surrogate for a basic land allocation dispute over the use of the national forest land.

Because of the fact we are debating surrogates within surrogates, there is substantial confusion over one, definitions; two, available facts; three, the nature of the status quo; four, the immediacy of any problems that might exist; and five, the adequacy of agency management efforts to deal with those problems.

The Forest Service states that there are 6.2 million acres of old growth in our national forests in the Northwest. National parks in Washington and Oregon contain 943,000 acres of old growth. The Bureau of Land Management estimates it's got 406,000 acres of old-growth trees. All told, there's 7.5 million acres of old growth on Federal land in Oregon and Washington, two States which have generated almost all of the controversy on the issue.

Of these 7.5 million acres, 4.2 million acres are now preserved and are unavailable to harvest. This massive area preserved old growth is equivalent to a 2-mile wide band of old-growth forest stretched from Seattle to New York. It's also the width of a Forest Service road 112 times around the Earth. That's substantial.

In our view, it is clear that there is no shortage of old-growth forests nor any immediate threat to the expiration of the old-growth resource. Just as there are tremendous acres of preserved old

growth, we are decades away from harvesting the last acres of old growth that is not permanently set aside.

The most recent Forest Service information projects that old-growth trees can continue to be harvested outside the preserved area for at least 50 years. That, in our view, is why the timber industry should not and indeed, cannot stop harvesting old growth to move to second-growth forests immediately.

At the same time that we are harvesting old growth, we are, as I will explain shortly, adding to the old-growth resources in other preserved areas. Most importantly, however, there is insufficient volume of second growth of harvestable size at the present time to sustain any semblance of our present timber-dependent economies.

Therefore, if the Northwest is to maintain anything near the current economic vitality, old growth must make up the majority of the annual harvest from our Federal lands. Clearly, as more second growth becomes available, the timber industry will adapt to this change.

My company is a leader in this trend being the largest manufacturer of laminated beams in the world. Ironically, the long-term preservation of old growth will ensure its demise. Old-growth forests will eventually transform into a climax successional-stage forest. This future forest will have shade tolerant species.

Mr. VENTO. Mr. Stout, if you could summarize because your time is up.

Mr. STOUT. Two more paragraphs.

Mr. VENTO. OK

Mr. STOUT. The addition to the old-growth resource that we are making in our preserved areas must clearly be inventoried and quantified before we can continue this round of the land allocation debate. There is no reason to pursue this issue as a one-way street which only works to take more land out of productivity.

I appreciate the opportunity to testify and will take any questions.

[The prepared statement of Mr. Stout appears at the conclusion of the hearing.]

Mr. DEFazio. Thank you. Dr. Irwin is next.

**STATEMENT OF LARRY IRWIN, WILDLIFE PROGRAM LEADER,
NATIONAL COUNCIL OF THE PAPER INDUSTRY FOR AIR AND
STREAM IMPROVEMENT**

Mr. IRWIN. Good afternoon. My name is Larry Irwin. I am wildlife program leader for the National Council of the Paper Industry for Air and Stream Improvement, or NCASI, in Corvallis, Oregon.

NCASI is an independent research and technical organization with headquarters in New York City. NCASI is funded by the forest products industry and gathers information to promote environmental management. The wildlife program is conducting research to clarify interactions between forestry and wildlife species in the Pacific Northwest. The research that I supervise is conducted in cooperation with State and Federal land and wildlife management agencies.

Today I would like to clarify important components of this controversy and hope to set an appropriate perspective for future discussions.

In my opinion, the spotted owl/old-growth debate has been approached as a land-allocation issue which has distracted participants from possible solutions and has diverted attention from needed research. In my opinion, this is unfortunate because the tone and nature of the debate can be changed to lead toward an information base and solutions that will balance the needs of the owl within managed forests.

I believe four conditions are necessary for agencies, environmental groups, and the timber industry, to gather the information that could lead to resolution of the spotted owl/old-growth debate.

First, we must ask research questions that spur experimental designs which broaden rather than narrow management options.

Second, we must develop management experiments that can allow appropriate changes in forestry practices.

Third, we must be able to conduct cooperative research to result in a commonly understood data base which we could use to communicate effectively with one another.

Fourth, participants in both the scientific and public policy debate must be responsible for communicating effectively and in direct terms.

As a scientist, I can only respond to the first three of those four components. In this case, I believe that science can only be one component of a largely aesthetic or social problem that has been converted into a complex, technical problem. Assuming we can achieve a novel approach to communications, we can approach the remaining three components for resolution through the following process.

The first step is to document the conditions under which spotted owls are already successful in managed forests. From this, we can develop experiments to learn how to manage forests, to meet the habitat needs of the owls, and produce other forest benefits at the same time.

The next step is to recognize that our current interpretations for viable spotted owl population have been made using data collected from forest stand level studies. This is significant because effective management really requires a landscape level understanding that can integrate owls in managed as well as unmanaged forests.

We can broaden our scientific understanding by considering landscape ecology concepts and research designs that examine the feasibility for maintaining not only spotted owls, but also vertebrate wildlife diversity within a forest system that includes a mosaic of managed and unmanaged forest stands.

Finally, and perhaps most importantly, I believe participants in this debate must commit to working together by developing partnerships to fund and conduct the necessary research.

In summary, I am optimistic that participants in the spotted owl/old-growth debate will arrive at a lasting consensus for maintaining wildlife diversity through a scientifically based, responsive program of forest system management.

Thank you very much.

[The prepared statement of Mr. Irwin appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Ms. Ann Goos.

**STATEMENT OF ANN GOOS, EXECUTIVE DIRECTOR, WASHINGTON
COMMERCIAL FOREST ACTION COMMITTEE**

Ms. Goos. Thank you, Mr. Chairman, mostly for pronouncing my name correctly.

I am Ann Goos, a resident of the totally timber-dependent town of Forks, Washington, and I'm executive director of the WCFAC, a community action group representing the northern half of the Olympic Peninsula. I am an advocate of public land management based on balance, equity, parity, and environmentalism.

The industry that is harvesting timber on the public lands believes strongly in sound environmental protection. It is only prudent that loggers working on public lands demand that trees are replanted, that land is managed wisely, and that our resources are protected from overcutting.

But removing thousands of acres of old growth on public lands from harvest forces unsound management strategies on second-growth forests to satisfy the inevitable need for wood fiber. This in turn will ruin the public commercial forests for future generations.

Loggers who work on the public lands are small business owners. The people I represent are not large corporations. They are independent contract loggers, small mill owners, single-log truckdrivers. These people earn wages; they do not receive dividends. They don't own their own land. They utilize our public commercial forests and they follow the environmental constraints which govern the timber harvest on public lands.

The loggers I represent desire the public lands to be managed in a sensitive and sustained fashion so that they can continue to work in timber, their children can continue to work in timber, and their communities can stay viable long into the future.

These workers have no power and yet are the ones that suffer the direct consequences of losing their livelihoods. These workers are 100 percent dependent on a sales policy that includes the harvesting of old-growth timber. The sale of old growth allows time for the second-growth forests to become mature within 60 to 100 years so that this timber is available for future consumers and timber workers.

Fully 90 percent of the total volume of sales for the next 50 to 70 years of our Soleduck District of the Olympic National Forest would be old-growth timber if the management plans could go ahead. Our workers depend upon a stable sales policy as decided by trained foresters who have always figured the cutting of old growth in their management plans.

The economic catastrophe of changing these plans at this point is almost unimaginable in my area of the country. There is no rational reason as to why we have reached a point where it is a real possibility that over 45,000 people will lose their jobs.

Unfortunately, some people have postured an either/or stance toward land management on public lands. Rhetoric and sanctimony have taken the place of science, technology, and ecological sophisti-

cation. We are being forced into a choice of preservation of more public lands over the societal needs of balanced management plans.

If preservation is the choice, we have to recognize the consequences. The timber industry is the largest manufacturing industry in the Northwest and the entire economical health of the region is in severe jeopardy.

But there is no reason to force thousands onto the unemployment line, nor is there any reason to lose vast acreage of habitat needs. We can direct land managers to manipulate silvicultural practices to provide for both a stable timber industry and old growth characteristics. We can provide for economic needs and leave the kinds of closed canopies and woody debris within the forests to simulate old growth. This is parity and this is sensible.

Remember, if we take the Olympic Peninsula alone, we have preserved over 1 million acres in perpetuity, roughly 500,000 acres of which is old growth. Fifty-three percent of our national forest acreage are preserved from any timber cutting forever. We must share our natural resources to protect the environment and provide for man's needs also.

[The prepared statement of Ms. Goos appears at the conclusion of the hearing.]

Mr. VENTO. Thank you. And the final witness is Mr. Hedstrom.

STATEMENT OF WES HEDSTROM, PRESIDENT, HEDSTROM LUMBER CO.

Mr. HEDSTROM. Mr. Chairman, I am Wes Hedstrom, president of Hedstrom Lumber in Grand Marais, Minnesota. Our company is a family owned concern in operation well into the third generation. We are heavily dependent on timber from the Superior National Forest in northern Minnesota.

I am also a county commissioner in Cook County, Minnesota. Seventy-eight percent of Cook County is made up of lands owned by the Federal Government and managed as a part of the Superior National Forest. Roughly half of this land in our county is in the Boundary Waters Wilderness Area.

You may wonder why a lumberman from Minnesota is here testifying before you on an issue so closely associated with the Pacific Northwest. I am here for two reasons.

First, because the old-growth issue is not limited to the Pacific Northwest in the way it has been used by environmental activists critical of the Forest Service management programs.

Second, I am here to offer observations in a region where we already are operating in a stable second- and third-growth forest. The previous witness described the devastating economic and social impacts that will occur if we cease the harvest of old-growth timber from those areas of the national forests in Oregon, Washington, and California.

These devastating impacts need not occur if we make sensible land allocation decisions now. In my region, we have already moved to utilizing forest stands that represent the third rotation of our forests. Our transition from an old-growth economy occurred at the turn of the century and up into the 1920's with the logging of the Great Lakes Pineries.

Ours was not a smooth transition because as a nation, we had not yet established an investment incentive for long-term forest management. Moreover, at the turn of the century, we had neither the scientific knowledge of forest ecology nor the silvicultural techniques needed to make sustained forest management a reality.

Nevertheless, this transition did occur. Now we are a stable industry that is actually exploring additional production potential as we gain a better understanding of the issues of some of our forest species in the manufacture of a variety of forest products and enhancement of forest values.

In sum, we are now a stable and expanding industry in the Lake States region, and have invested or committed \$2.5 billion over the last 10 years in modernizing or building new plants. In the Pacific Northwest, we are facing the prospect of the same sort of abrupt and devastating change from the old growth to a second growth economy that we faced in the Lake States.

However, this abrupt transition and attendant economic dislocation will not happen because we lack the incentive or the knowledge to manage change and make it occur gradually. Rather, it will happen because—if we accept what environmental groups suggest as an appropriate course of action—you decided in the middle of this transition to remove substantial portions of the forest-land base, from the rotation cycle.

My colleagues in the Pacific Northwest have not been overcutting their forest land base based upon how big you told the Forest Service it should be upon passage of the 1984 wilderness bills and completion of the forest plans. I would like to be able to say that because of the maturity of the industry in our region, the public policy challenges in allocating publicly owned forest resource now are behind us.

However, I cannot because even though there are no significant ancient forests in our region, we are still engaged in very divisive and emotional land allocation debates about the use of public lands. Where our second-growth forests have moved beyond maturity, we are engaging in debate over preservation of old-growth stands which are being represented as ancient or virgin forests.

I am deeply concerned that because of these land allocation disputes our region may be prevented from ever reaching its productive potential in the world market for fiber. I offer this observation as a citizen concerned about the health of our global environment.

The market for wood products in which we currently operate, whether we are talking about the market for solid wood products or pulp fiber, is a world market. In this market, we compete with other developed and developing countries. To the extent that we reduce our production, the demand for wood products will be met by other countries.

The national forests contain half of the country's supply of wood that is used for construction purposes. However, the amount harvested from the national forests is only 15 percent of what Americans use annually. I view this as a contemporary—

Mr. DEFazio. You'll have to summarize, Mr. Hedstrom. Your time is up.

Mr. HEDSTROM. I'm just about through.

In my view, we have a responsibility to produce wood fiber to our potential because we can do so in a way that minimizes environmental implications of this action. The balance of the world simply lacks this capability. The wood we choose not to produce will be replaced in the world fiber economy by wood from Borneo, Malaysia, Chile, the U.S.S.R. and Brazil. Our reluctance to perform to our potential will have grave implications for our ability to convince the developing world that the forests should be conserved.

Just a short observation. I heard two comments this morning. We have set aside and preserved it and the other, how can we explain to the people in Brazil that we are preserving our forests while we have over half of what we're talking about here today—old growth—that is locked up in national parks and wilderness areas.

We all know that the management policies in those areas allows for fire to burn if it starts from natural causes.

Mr. DEFazio. Mr. Hedstrom, I'm going to have to ask you to terminate at this point because we do have a lot of witnesses. We had 2 days of hearings on the let it burn policy.

[The prepared statement of Mr. Hedstrom appears at the conclusion of the hearing.]

Mr. DEFazio. I'd like to ask a few questions.

Mr. Stout, if you could—I wish the chairman were here, but he'll certainly hear about this later. Could you relate the current situation? First of all, what percentage of your annual raw material input at Bohemia could be termed to be second growth, just for the record, for your glue lam and other operations?

Mr. STOUT. A little over 40 percent of our needs is from second growth which is a nonold-growth type.

Mr. DEFazio. Of that mix, 60-40, are you finding a readily available timber supply? How long of a supply do you have under contract? How long do you expect you could operate at your current rate of production?

Mr. STOUT. We've got under contract right at 400 million feet, which is a year's supply. We're blessed with having some pre-1182 that we couldn't get rid of any other way, so we've got volume that a lot of other people don't have.

Mr. DEFazio. I wouldn't consider that a blessing a few years ago.

Mr. STOUT. I certainly wouldn't.

Mr. DEFazio. Amazing how things change.

What about the pipeline, so to speak? I'll give an analogy. I was up in Alaska and they talked about if they ever shut down the pipeline totally or on an emergency basis, that they end up with an 800-mile long licorice stick, which is difficult to get going again.

We have the same thing with, I think, pipeline in terms of timber. You heard the previous witnesses give some numbers that they find could be an interim supply while we look for a long-term solution.

Can you reflect on what you hear from the Forest Service or know from the industry, past industry practices in terms of how long it would be before the Forest Service could move up some of that inventory and how that coincides with your 1 year's supply under contract?

Mr. STOUT. This whole process is kind of a discouraging deal for a timber manager. To start out with, the volume under contract in the State of Oregon, January 1, 1983, was 16.7 billion feet. That was prior to buy-out. A lot of that was too expensive to operate.

At the first of this year, there was 6.7 billion feet under contract in the State of Oregon only. The industry is using—logged last year 9 billion feet. There is enjoined on the Forest Service and the BLM about 3.5 billion feet. Until the spotted owl issue has been settled in the court, I don't see that the Forest Service is going to be able to come back. Half of their volume would be real optimistic.

We're going to lose 1.5 billion to 2 billion feet more this year and that takes away any opportunity, any interest in investing in any plans.

I'd like to say one other thing. When we talk about the second growth economy, we talk about the changing over to that. Let's be very, very careful. One of the things that has been looked at and it needs to be looked at in this process is that there are several pulp mills in the area that have a half a billion dollars invested.

They're going to get the chips necessary to run those mills. Those chips now are in the \$100 to \$110 neighborhood. I suspect that they could pay \$170 or \$180 for chips, the small log multiplies times 3 units of chips per 1,000 board feet. A lot of the wood that we expect to go into the small log mills will actually, in fact, end up in chips in the pulp mills, which will further multiply the problem.

And the other thing, in my expertise, I think what will happen is we'll end up logging 30- or 35-year-old wood to make chips, which really kills us 10, 15, 20 years out when we really should be logging that. So, it's not a simple problem.

Mr. DeFAZIO. Thank you.

Dr. Irwin, this will be my last question for my first round. Dr. Irwin, if you could address it, you mentioned or broached, the first of your four points was broadening management options. You heard earlier testimony about making available a volume outside of these large, intact stands.

Have you looked at, first of all, the possibility of that? Could you reflect on some of Dr. Franklin's work, which has led to some minimum fragmentation ideas on the Blue River Ranger District, if you're familiar with that? Could you comment on those two things?

Mr. IRWIN. First of all, to broaden management opportunities, I consider that previous research in the arena of wildlife and forestry basically has been designed on the basis of determining the impacts of forestry on wildlife. Studies with designs based on that question can only narrow management options.

What we need now is new designs with new questions that are asking how to manage forests to allow for sustained wildlife diversity in a managed forest. I think the kind of processes that Dr. Franklin has developed will be just the kind of process that we need to discuss in detail which might lead us toward that resolution.

Mr. DeFAZIO. Have you looked at, or had a presentation on the proposal in the Blue River District? I had a presentation and the ranger who is now back here with the National Forest Service took the same volume over a 10-year period but used a different management technique—minimum fragmentation versus the more tra-

ditional dispersed harvest and got the same volume over 10 years, but had much more intact, larger blocks of old growth left at the end of that period of time.

Have you reviewed that, had an opportunity to review that

Mr. IRWIN. I've not seen that proposal. I've heard of it. I do have some biological concerns with the notion of large expanses of sloppy clear cuts that may cause problems for certain wildlife species, and also had some discussions, I suppose, I could enter or relate relative to what fragmentation is.

Most of our understanding about the process of forest fragmentation comes from eastern deciduous forests where the process is probably quite different than it is in western forests where it has just been started in the past 40 or 50 years.

So, I think our biological understanding of the process of fragmentation still need a great deal of development before we can make policy decisions on how to approach it.

Mr. DEFazio. Thank you. Mr. Jontz will assume the chair and I will be back. I do have questions for the remainder of the panel and hope to be back in time to ask those.

Mr. JONTZ [acting chairman]. I thank the Chair and I also want to thank the panel for their statements.

Dr. Irwin, are you a wildlife biologist

Mr. IRWIN. Yes, sir, I am.

Mr. JONTZ. Your doctorate is in wildlife biology?

Mr. IRWIN. That's correct.

Mr. JONTZ. Well, I was very interested in your comment that we need to have a commonly understood data base to allow communication because it seems to me that the different parties in this controversy do not have a commonly understood data base.

Just listening the brief period that I have this morning, it doesn't surprise me that we have the sort of conflict that we do because obviously, the assumptions that are being made are radically different, in terms of what is old growth and what is spotted owl habitat, et cetera, et cetera.

Dr. Irwin, do you think there would be some point in putting together some sort of technical committee of scientists, of ecologists, of foresters, of biologists, who could sit down and try to work out some sort of commonly understood definitions?

I appreciate that there are political judgments that have to be made at some point, but I would think that the scientists and the foresters who presumably have all been trained pretty much in the same way of approaching these questions could be able to make some progress in reaching some definitions.

Has there been such a technical committee representing different viewpoints or not, and do you see any utility in that sort of approach?

Mr. IRWIN. There are interagency wildlife committees in the Northwest which relate to spotted owls, and deer and elk and other species and I understand that many of the scientists involved in the old-growth relationships are in direct communication with each other constantly.

What I'm talking about, I suppose, are interpretations of the current data base. My view is that if people can work together in defining research objectives, acceptable research designs, cooperative-

ly gathering information and interpreting that information, that that might be the sort of process that would be beneficial in doing what you suggest.

I'm not convinced that any more than the Congress always agrees on everything in this country, that a panel of scientists would do the same if they were just directed to do so. I think it needs to be a process by which they can gather information and share it and interpret it.

Mr. JONTZ. But do you think they could agree on a definition of old growth?

Mr. IRWIN. I don't know that.

Mr. JONTZ. You don't know whether they could. Well, I'll ask this question to all the panel. It just strikes me as a rather odd debate that we have going on here. Industry comes forward and says, you can't protect the old growth. If you do that, we won't be able to meet the needs of our mills for timber.

And environmentalists come forth and they say, well, no, that's not right. What you're calling old growth isn't really all old growth. What we consider to be old growth is much more narrowly defined than what you consider to be old growth and if we could just get the Forest Service to define old growth or identify old growth, there would be some probability that there would be plenty of timber left over that could be used to meet the supplies that you need.

It just strikes me as a rather odd debate, at least what I've heard so far this morning.

Ms. Goos. I think what the debate is, more than old growth, to tell you the truth, Congressman, it's the debate of how much of our land base is going to be continued to be taken away. Now, I'm going to assure somewhat for you that I think the Forest Service is doing an OK job in terms of their inventory.

If you have a management plan that says you're going to be able to cut old-growth trees for 50 to 60 years, you're allowing time for second growth to come up. That means that within 50 to 60 years, I'm going to have those trees available on a sustained yield cycle. You take those old-growth trees out—however you define them—you take that acreage out.

Let's take the Olympic Peninsula. We're left with nothing for 40 years. We don't have second growth that is available yet for cut.

Mr. JONTZ. Well, if I might ask you to clarify this then. Then why does the Washington State Old Growth Commission estimate 200,000 acres for Olympic National Park and you said there were 500,000 acres of old growth in the park. Well, obviously, there are people talking past each other using radically different assumptions.

When you use those radically different assumptions, you can't resolve the issues. If I understand the argument of the environmentalists that we just heard, their belief is that there is timber producing land that does not meet the definition of old growth as they see it, that would be available.

Ms. Goos. Let's take the timber sale on the Soleduck District. We have not had a sale off that district, not one sale off that district, since December 1988. Now, whether or not that's old growth is moot. The timber isn't available. We don't have anything to cut.

Within 4 months, I can guarantee you the Olympic Peninsula is going to be in economic hardship.

Now, I agree with you that we need to define that. But we don't have a lot of time in terms of our jobs to get that definition. It sounds like we're going to be in this argument—if I was listening to the other panel—1 year to 1½ years. If we have sales that are enjoined in litigation, you're not going to have a timber industry sitting at the table.

Mr. JONTZ. But what I heard the last panel say is that they felt that in some areas, we have enough information to start now in identifying where the short-term timber can come from if there would be a willingness between the industry and the environmentalists to sit down and try to work that out.

Ms. Goos. My candid reaction to that is—I have to mince my words here—are they the best forest managers, No. 1, and if that timber is available, then for some reason the Forest Service has not put those sales up.

If that timber is available somewhere along the line, the Forest Service has not made those sales available. So either the Forest Service doesn't recognize those sales or that timber that is available or we need to change land managers and let the Sierra Club put those sales up for sale. That's the problem. Those aren't available yet.

Mr. JONTZ. Well, I have to admit that at least based on what we've heard so far today, the Forest Service doesn't look too good in this debate. Had they done their job to start with, we might not find ourselves in this very difficult circumstance.

But are you unwilling to engage in discussion with the environmentalists over identifying—

Ms. Goos. There isn't a person on this panel—I represent communities; I'm not even from the timber industry—that is more willing to get this situation worked out. I represent people who are store owners, who are bank owners, who are schoolteachers, who are going to lose their jobs at the same time that the timber industry loses their jobs.

I think that we are beginning to do those steps, but I think one of the things we need to look at also is what we can do with land management that allows for cut and allows for habitat all at the same time—that is, the Jerry Franklin model of forestry.

Mr. JONTZ. I appreciate that and I think we should investigate those options.

Mr. HEDSTROM. I'd like to just address the topic of negotiation. I'm from the Superior National Forest. It was one of the first plans implemented in the national forest system. There were 12 or 13 items that were appealed by the environmental groups. I was the one that suggested to the Forest Service that we sit down and negotiate everything possible and we did.

Obviously, we negotiated the easy items. That was not a problem. We still have two items out there that are hanging and they don't want to negotiate those because they may not agree with the Forest Service's final statement on this and they want to have the option of go to court. So, that's what negotiating with these people is like.

Mr. STOUT. The other problem that you've got when you negotiate, for instance, the panel that was before us. They do not represent the total environmental—if you call them environmentalist. I really think that I'm an environmentalist and they're preservationists. But that's semantics. That's the same discussion we've got—ancient forests or old growth.

If these guys—if we sat down and made an agreement, there are plenty of other people and it just takes one person to enjoin a timber sale. I don't think you can negotiate through that process and end up with anything with anybody having any knowledge of what they're going to have or be able to have—

Mr. JONTZ. Have you tried?

Mr. STOUT. We've had discussions. You know, there's 3.5 billion feet enjoined.

Mr. JONTZ. I appreciate that. Have you tried those negotiations?

Mr. STOUT. I haven't participated in any. There's been a process going on in the Willamette National Forest for, at least a year and a half, called a consensus building process and as I understand it, there's very little, very, very little consensus that's been built out of that. The major issue is still there.

One other thing I'd like to have entered in the record, if I could, please, and that's the "Spotted Owls, Old Growth and the Economy of the Northwest," May 1989, put together facts by the Northwest Forest Resource Council. I think it's a good background information on inventories, where the money goes, and the direct effects on the local economy, the tax dollars, the stumpage dollars.

Mr. JONTZ. Without objection, it will be.

[The information follows:]



NORTHWEST FOREST
RESOURCE COUNCIL*

1500 S.W. First Avenue, Suite 770 • Portland, Oregon 97201 • (503) 222-9505

SPOTTED OWLS, OLD GROWTH
and
THE ECONOMY OF THE NORTHWEST

A paper which describes the current situation and outlook
for the forest products industry in the Northwest

Prepared by the Northwest Forest Resource Council

This information is intended to be used for the general education of those interested in the forest products industry of the Northwest. Any reproduction of this material for this purpose is authorized by the Northwest Forest Resource Council. Additional copies have been printed so that they may be available at a reduced cost to those wishing to have large quantities on hand for distribution. Contact North West Timber Association, (503) 686-9603, if you would like to place an order.

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PREFACE

There is a heated debate going on in the Northwest centered around the management of federal forest lands. While the debate is focused on spotted owls, old growth timber and forest planning, the root issue remains, as it has for twenty years, "How much federal forest land will be managed to include timber production, and how much will be preserved in its present state?"

The battle is not over the future of the millions of acres of National and State Parks, or the 53% of the national forests where timber management is excluded by law or administrative action. Instead, it is centered on the 47% of the national forests where timber harvest is allowed as part of the overall multiple-use management scheme.

The purpose of this paper is to examine the basis of current conflicts, the consequences if those conflicts remain unresolved and to set out facts for some of the various sub-issues. The paper is comprised of three basic sections.

The first section describes the current situation and economic consequences. The second discusses four major issues involved: the Northern Spotted Owl, old growth, log exports, and mill automation and productivity. The last section contains reference material.

If nothing is done to change the current situation, thousands of people in the Northwest will lose their jobs before the year is over. These will not only be people who work directly for a mill or logging company, but also thousands who rely on money generated by the forest products industry for their livelihood. The plight of the forest products industry affects all those who live in the Northwest. Solutions which allow professional land management and stability for our timber dependent communities, can and must be found.

EXECUTIVE SUMMARY

The forest products industry of the Northwest is facing a crisis exceeding that of the early 80s. Preservationist organizations have mounted a campaign to halt the cutting of old-growth timber on federal lands. These groups are capitalizing on the ambiguous language of laws governing the management of federal lands to accomplish their goals. In Region 6 of the Forest Service, timber sale appeals in 1988 increased by 613% compared to a 1983-1987 average. Three major lawsuits are putting 34,000 to 131,400 jobs at risk. The federal treasury stands to lose between \$900 million and \$1.6 billion in revenues. County governments in Oregon and Washington may lose as much as \$460 million, which is needed for education, road building and social programs.

The commonly cited issues surrounding this crisis are: the spotted owl, old growth, log exports, mill automation and productivity. The public has heard much on these topics from the news media. There is, however, a lot of information which has not been shared.

There is a lack of conclusive research data on the spotted owl. Current national forest management decisions are being based on speculation and theoretical modeling techniques. Although few facts about the owl are known, we do know there will be over five million acres of suitable habitat even if original sale amounts were maintained for the next ten years. During this time, additional research could be done and the existence of the owl would not be threatened.

Presently, there are over 7.5 million acres of old-growth forest on the federal lands in Washington and Oregon. Over 4.2 million acres is preserved as Wilderness Areas, National Parks, and other land set-asides. On the lands that are available for management under the proposed land management plans, old growth harvesting can continue for fifty years or more.

Many claim that ending log exports will solve the timber supply problems of the Northwest. The timber supply shortage resulting from the old growth and spotted owl debates involves federal lands, where log exports are legally prohibited. While exports from private lands are significant, these logs would not become available to public timber dependent firms even if the private right to export was abolished. In short, while the log export issue is a legitimate and shared concern, linking export

bans with increased preservation of old growth will not solve the region's timber availability crisis.

Mill automation is being blamed for past and future losses of jobs within the forest products industry. The forest products industry is the largest manufacturing employer in the Northwest. Its prosperity determines the health of the region's economy. The forest products industry and jobs it creates would not exist if it had not modernized its mills to stay competitive. Today, the industry is producing more finished products from the logs harvested while maintaining a stable workforce.

(The complete report is held in the committee files.)

Mr. JONTZ. Let me just ask one more question.

I believe it was Brock Evans in the last panel who said that the environmental groups in the Northwest were interested in seeing a list of the mills, that in the opinion of the industry, are going to be out of timber in the foreseeable future than some immediate time-frame so that work could be pursued in those cases in trying to identify areas for meeting the timber supply.

Is there a problem with providing that sort of information?

Mr. STOUT. No. There is, in fact, a list put out by "Timber Data" in Eugene that tells the volume under contract of each timber purchaser, Forest Service, BLM, State or combined, and that list is out, public knowledge put out quarterly.

Mr. JONTZ. And what is that list again?

Mr. STOUT. It's "Timber Data" and it shows the volume under contract by each individual purchaser or each individual mill in the States of Oregon, Washington, and California. So, the list is there. The only thing you'd need is the volume consumption that they're using.

Mr. JONTZ. So between the industry and the environmentalists, you ought to be able to sit down and use that list to make a pretty good stab at identifying the mills for which there is an immediate problem.

Mr. STOUT. Yes. It's one thing to identify the mills with immediate problems. It's another thing to guarantee that they can and will be able to buy any wood to put in that.

Ms. Goos. Yes, I caution that approach for the simple fact—that's a really scary way to run your business, that you negotiate for this time that you need x amount of feet for this year. You may get it next year, you may not get it next year. Whereas I think that's an interesting notion, I don't mean to be difficult. For a businessman, you can understand the risk of that a little bit.

Mr. STOUT. And you've got to be careful with that because you can go to jail for that kind of activity.

Ms. Goos. Yes.

Mr. JONTZ. Well, my time is expired and I appreciate your answers to the questions and I will return the gavel to Mr. DeFazio.

Mr. DEFazio [acting chairman]. At this point, I would recognize Mr. Morrison.

Mr. MORRISON. No questions, Mr. Chairman.

Mr. DEFazio. Mr. Craig.

Mr. CRAIG. Thank you very much, Mr. Chairman. I was not here for your testimony. I will read it. I thank you for coming and testifying on this most important issue.

I'm always intrigued by the dialog that goes on in these hearings and the way we attempt to avoid the issue. The issue is that politicians can't pass "Go" on this one. We can't give the industry and the environmentalists everything they want.

I would like to say for the record, and for my colleagues, on this one we're going to have to own up. We're going to have to make a decision in this Congress about a public policy that isn't working at this moment. As a result, it has a lot of people on the rocks and it has groups, and individuals, using and administering policy in a way it was not intended.

I don't think we can pass the buck. I think we have to make a decision this time around or obviously, we will be in interesting straits. I also find it interesting that public policy is being negotiated out there on the ground. It has been suggested that parties ought to come together and make a decision because the Congress doesn't have the political will to.

I hope the record will show this very clearly. This is one we can't pass "Go" nor is it one that we ought to negotiate in the field. Ms. Goos, you're absolutely right. Any industry that would say, I'll negotiate for another 6 months is sending the signals to the community, the children and the school systems, we may not be around next year so sell your home and your business now and get out before it's too late.

We cannot have that kind of future base in the economies of our States. At the same time, I am willing to say to the preservationist community, they deserve to have a part of the action and to be a participant, but I will not allow them to say to the Forest Service, we will let you have this sale and we will not let you have that sale. That is wrong.

It is fundamentally wrong and it is a product of a Congress that is unwilling to make a decision. Keep the pressure up and we will be forced to make the right decision and finally generate some good public policy and some guidance for use out on the ground.

Stalemate and indecision is something that we cannot tolerate in the Pacific Northwest and in the forest products economies.

Thank you all very much.

Mr. DEFazio. Mrs. Unsoeld.

Mrs. UNSOELD. Thank you, Mr. Chairman.

Ann, are you familiar with the consensus process on the Olympic Peninsula State lands and how well do you think it has worked?

Ms. Goos. It's wonderful. The Old-Growth Commission, mandated by Brian Boyle, who is the Washington State land commissioner, brought together 35 people to the table. Congressman, kind of what you were talking about—the idea of bringing everyone and trying to define what old growth is, how we can have communities, how we can have a timber industry, and how we can have environmental protection.

I think what they have done—they have done no set asides and they have done some creative management strategies. That's exactly the same type of thing that we can do on our national forests. It's already mandated to be multiple use. We have a headstart.

I think if we always stopped questioning the Forest Service with such a jaded eye, perhaps we could move a little bit beyond this and work together, including the agencies.

Mrs. UNSOELD. I would submit to my colleague that the kind of negotiations we may be talking about are not on an on-site policy determination, but rather implementation of policy and maybe coming up with additional recommendations.

But I think it's more the implementation because no group of lawmakers, however well intentioned, are going to know enough about what's going on, on some slope, or valley, or what the sale conditions really are. That's the implementation of the policy.

But one other question I would like to ask is, Ann, if there were to be additions made to the timber land base for future harvesting

purposes, do you think that that ought to be in the private sector only, in the public sector, or a combination, or how would you add to the land base, because I share your concern that it has been reduced?

Ms. Goos. The gut reaction is, we have the land base. We could do some things with the existing land base to make it more palatable to all parties. I suppose if we were going to add to the land base, I'd have to really look at all of the considerations of what that would mean for private ownership and all the rest of that.

I think we have a land base. I'm not quite sure why we have to debate that. If we could just keep what is there and maybe manage it differently, I think all parties could be happy.

Mrs. UNSOELD. My concern is that there are too many private woodlot owners who may decide they don't want to turn that back over and that would diminish the future.

Ms. Goos. Sure, and I think the tax incentive program sounds fine.

Mr. STOUT. I'd like to speak to that just a little bit. In Oregon, we have a requirement that if you cut forest lands, you do reharvest that, you do have reforestation at the end of 5 years. We don't have the problem that you're talking about.

I personally have a problem with the Forest Service and the BLM owning any more land for the simple reason that the bureaucratic process that they go through is so spendy and actually inefficient in a lot of ways with withdrawals, that you could add a lot of land to the land base and still not have any land base to cut any timber off when the timber got ready to cut.

So, I think we're better off to leave it in the private sector and make some incentives some way. One, that the private landowner operate the land that he's got, make some incentives that he actually cut the timber, instead of taking more land into the Federal land base because their history of the amount of wood that they get off the total land that they've got isn't that good.

They do a good job of reforestation, but I think there are other people that do and provide more fiber than the Forest Service does.

Mr. HEDSTROM. You will hear this very often from the other groups, that there is a lot of private land base out there from which we can get our timber supply. I sat at a board of review yesterday morning where people that own 40-acre tracts want to keep it just to look at, not to manage for forests. We have this all over in a lot of States and without a Forest Practices Act that says you will manage that for timber, it really doesn't mean anything.

Mr. DEFazio. Thank you. The gentleman from Oregon, Mr. Smith.

Mr. MORRISON. Mr. Chairman? Could I inject in the record—

Mr. R. SMITH of Oregon. I yield to my friend.

Mr. MORRISON. I thank my friend from Oregon.

Just the fact that Washington State also has a Forest Practices Act, probably very similar to Oregon, so there is a mandated requirement for reforestation. We're proud of that. We think it has worked relatively well. I'm pleased that there has been some negotiations that have been meaningful, people working together.

The problem is the State lands have been pretty well cut. They do not have a significant percentage of old-growth timber, so it's a little more difficult than dealing with the Federal forest lands.

I thank the gentleman for yielding.

Mr. R. SMITH of Oregon. Mr. Chairman, Ms. Goos, and members of the panel, after you reach this consensus in Washington with respect to how much timber you're going to harvest or set aside, how do you get by the appeals to Judge Dwyer, Judge Burns, Judge Frye, in the ninth circuit court in California? Tell me how you do that. I'd be interested to know.

Ms. Goos. It's a wonderful rhetorical question. I don't know.

Mr. R. SMITH of Oregon. It is a rhetorical question.

Ms. Goos. I don't know. I think that is the loose cannon within this whole situation and that unless that loose cannon can be controlled, again speaking candidly, it's hard to negotiate when you're talking about negotiating your livelihood, your heritage, your job, your home, your family, and that's not to say the timber industry is reluctant to negotiate.

I think there's an impending sense of doom which makes it emotionally very difficult to do that, and as long as you can't control right now the timber sales that are being stuck in injunctions, it's real tough.

Mr. R. SMITH of Oregon. Thank you. Anybody else wish to comment?

Mr. STOUT. One of the things that the spotted owl is, in fact, listed. Now, I don't know the circumstances—

Mr. R. SMITH of Oregon. Proposed to be listed.

Mr. STOUT. But if it is listed, the negotiations that went on in the State of Washington—I don't know if they've got any rhyme or reason because as I understand the threatened or endangered species, it covers all land, including private land. So, you could have a negotiated settlement and 1 year from now, you could be at half or third the volume that you actually agreed to.

Mr. R. SMITH of Oregon. I guess my point again is simply that everybody wants to negotiate. Some want to compromise. Some want to reach an agreement. The point is, who speaks for the principals of 11 major environmental groups in this country who spend \$150 million a year to advance a program?

Who speaks for all the timber companies in the western half of the United States or, for that matter, the country? We're supposed to be sitting in a so-called summit meeting on June 24, you all know about—I assume you do, I know you do—with the Governor and the congressional delegation and we're, I assume, trying to find some answers.

There are no answers to be achieved because there are only three people that represent the various environmental groups. I mentioned there are 11. Who's going to speak for the other eight? There are three people representing the timber interests. Who's going to speak for the rest of the timber companies? Is the State or the associations?

So, after we get through all this idea, this royal program of consensus and compromise, who's going to control the courts? I say nobody, unless we reach some sort of short-term agreement that

the courts are not going to be involved in this thing until we reach a long-term agreement on what's going to happen in the future.

With that, I agree with Mrs. Unsoeld, but a short-term agreement is important simply because without a short-term agreement, we're out of business. We've got a 1.5 billion board feet shutdown right now. Without a short-term agreement, we might as well all go home, at least the State of Oregon. We're ruined.

Do you want to comment on that statement?

Mr. STOUT. I don't disagree with that at all. Really, I think we put the whole issue in the wrong context when we say companies are in trouble. We're not talking about companies being in trouble. We're talking about people wanting to enjoy the good life of living in the Northwest, having a job as part of the enjoyment of that good life, and living in a rural environment.

I don't think that we can negotiate that away with any conscience. I don't think any of us has got the moral or immoral right to do that. Those people enjoy what they do. A lot of them will not be able to find another job that pays anywhere near that.

Ms. Goos. I think that the other factor, too, being I represent communities, there's a whole group of people who have been left out of this who are indirectly dependent upon timber. And to share with you, we have a working budget of less than \$19,000.

We're probably going to be done being an activist for communities within 6 months. That's just a fact of the way the money is going to be up there. We're trying our best to bring this issue to some consensus, but it is very difficult again in that kind of level of crisis that we're at.

Mr. R. SMITH of Oregon. Thank you.

Mr. DEFazio. Thank you. The time of the gentleman has expired.

If I could, one further question, Mr. Stout. When you talk about the Forest Service and their record of production, I guess there's two things I'd like to ask.

One is, I don't think you're recommending that the Forest Service should manage all of its lands without a multiple-use mandate. I'd like to clarify that.

Mr. STOUT. I do not.

Mr. DEFazio. And second, one key factor that I reflect and all the reports I read point to it is, that we aren't making the investment we need on the forest lands that we've decided to manage for timber.

Could you compare per acre investment—I don't know if you have a number—one, private lands versus Forest Service lands, where there's no controversy, where we've decided, this is general forest, it's being managed for timber. Could you just compare generally the inputs on private versus Federal?

Mr. STOUT. We have, in Oregon, 45,000 acres. We harvest from 12 to 30 million feet a year off of that. We've got two guides that lay the timber sale out and then get it burned and reforest it. Our costs are substantially different than the bureaucracy that both the Forest Service and the BLM have.

Part of that, I think, is mandated by Congress in the report system that they have. The thing—I have no problem with the Forest Service's reforestation. I think they do an excellent job, maybe in some instances, 1 year later than what we would do. We

look at plantable spots and plant sites that the Forest Service would not. They would wait another year to try to burn it.

The BLM's another issue. I don't think that they're doing the same quality, the same timeframe work on the reforestation. They are 2 years slow—they're slower than the Forest Service, but I think the final result, especially in the last 5 or 6 years on the land that they've planted has been pretty good. The survival has been pretty good.

And with them getting the ability, hopefully, to do some spraying to release the brush, the quality will be better, but the dollar value difference is substantial.

Mr. DEFazio. I've been looking particularly commercial, precommercial thinning, and fertilization. Do you do those practices on your private lands and do you observe that being done optimally on the Federal lands?

Mr. STOUT. The Forest Service has done better—actually, the Forest Service and the BLM both are probably behind on the amount of precommercial thinning that they're doing, obviously behind on the amount of fertilization they're doing, obviously behind on the spraying that's necessary to release the stand.

We don't do actually as good a job as we should do in those areas ourselves, but we're working to get that back up.

Mr. DEFazio. Thank you.

Does anyone else have a second round of questions?

[No response.]

Mr. DEFazio. Hearing none, we'll thank the panel for testifying and we'll move on to the third panel, Definition and Inventory. Mr. Peter Morrison, Wilderness Society, forest ecologist; Mr. Charles Sisco, forester, National Audubon Society; Mr. Kent Robinson, policy and programs analyst, National Forest Products Association; and Mr. James English, executive vice president, Idaho Forest Industries, Inc.

Is the panel prepared? I see some discussion going on here.

Mr. Morrison, you're listed first for 5 minutes. Go right ahead.

STATEMENT OF PETER H. MORRISON, FOREST ECOLOGIST, WILDERNESS SOCIETY

Mr. P. MORRISON. Mr. Chairman and members of the committee, I'm Peter Morrison, forest ecologist for the Wilderness Society, on behalf of the society's more than 300,000 members, I appreciate this opportunity to testify on ancient forests in the Pacific Northwest.

Perhaps nowhere else in the Federal land system is the need for major policy change more urgent than in the Pacific Northwest. Here, in western Oregon and Washington alone, scientists estimate that the ancient forests once occupied nearly 20 million acres, possibly more. What is left today after more than a century of heavy cutting is only a small fraction of that original endowment.

In the Pacific Northwest also are found powerful proponents for continued liquidation of our irreplaceable ancient forests. If this resource were plentiful, which it is not, or capable of renewing itself quickly, which it cannot, we might be elsewhere today. But time is running out for this national treasure.

Based on my inventory work and estimates from State and Federal agencies, there are likely not more than 2.4 million acres of ancient forest or old growth left on all ownerships, and that includes all Federal lands, all State lands, and private lands in western Oregon and Washington.

All estimates available now are at least 1 year out of date; therefore; the current range of the ancient forests is probably even more limited than that 2.4 million acres. This means that we have already cut 90 percent of the original ancient forest endowment in this area. Most of what remains is not protected.

As you heard earlier, only about 800,000 acres or perhaps less is unprotected. My testimony describes the society's findings which were first published last November in a study prepared and entitled, "The Old Growth in the Pacific Northwest: Status Report." In the interest of time, I request that this document be entered in the hearing record so that committee members may examine our methodology and results in detail.

Mr. DEFazio. Do we have that document?

Mr. P. MORRISON. I believe that it is available here. Yes.

Mr. DEFazio. Could you just give me an idea of the magnitude of the document? It makes a difference whether it will be on file or in the record.

Mr. P. MORRISON. This is the document here.

Mr. DEFazio. I think we can place some of that in the record, yes.

[The information follows:]

OLD GROWTH IN THE PACIFIC NORTHWEST:
A STATUS REPORT

by

Peter H. Morrison

For The Wilderness Society



PREFACE

The 12 national forests on the western side of the Cascade Mountains in Washington, Oregon, and northern California are experiencing the loss of much of their original tree cover. Ancient stands are the rarest and the most likely to be logged; indeed, the forest products industry refers to "old growth" as timber and measures it in board feet. Yet the ancient forests are a complex and irreplaceable natural community providing an enormous pool of benefits aside from timber for mills.

Despite the importance of these forests, there has been little agreement over the precise definition of old growth; the specific amount, condition, and location of old growth that remains, and the extent to which this valuable resource is threatened.

In the face of conflicting and inadequate information, conservationists, biologists, wildlife experts, elected officials, and other citizens have had difficulty in communicating their concerns over the demise of the ancient forests. Therefore, The Wilderness Society undertook an ambitious project to describe and quantify the old-growth resource on the "westside."

This report provides for the first time a valid, scientific assessment of the amount and condition of ecological old growth that still exists on 6 of the 12 westside national forests. The results conflict sharply with Forest Service claims about how much old growth remains and how quickly it is being liquidated.

Peter Morrison, an experienced forest ecologist, carried out the project. He worked under the direction of Barry R. Flamm, The Society's chief forester, and closely with Elliott Norse, senior ecologist, and Jean Durning and Robert Freimark, director and associate respectively in our Northwest Regional Office in Seattle. H. Michael Anderson, The Society's forest planning specialist; Jeff Olson, resource economist; and Deanne Kloepfer, director of special projects, contributed to the final draft of the report. Anna Harrison was responsible for its production.

The project was made possible through generous grants from the Joyce Mertz-Gilmore Foundation, the Wallace Genetic Foundation, and the W. Alton Jones Foundation. The results of the study will make a major contribution to the current debate over the fate of the ancient forests in the Pacific Northwest. We offer it with the knowledge that intelligent discussion requires the most accurate information possible.

George T. Frampton Jr.
President
The Wilderness Society

Peter M. Emerson
Vice President
Resource Planning and Economics

ACKNOWLEDGMENTS

This analysis of old-growth forests in the Pacific Northwest reflects the efforts of a great many people. I especially appreciate the extensive support, guidance, patience, and assistance offered by Barry Flamm, Dr. Elliott Norse, Jean Durning, and Robert Freimark of The Wilderness Society.

Doreen Schmidt, Richard Murray, Debaran Kelso, Pat Milleren, Nancy Kincaid, and Sue Szaido deserve special recognition for their meticulous work in updating the timber inventory information for each national forest. Perry Welch, Stephanie Simari, Pat Reed, and Thomas Oliver assisted with numerous tasks, ranging from map preparation to data entry. My wife Aileen Jeffries helped with computer programming and proofreading; completion of the project would not have been possible without her.

Michael Stewart (Project Lighthawk) assisted in coordinating and piloting flights over the forests. Michael Oppenheimer and Bill Cleaver, who piloted flights over the Siskiyou and Mt. Baker-Snoqualmie National Forests, were generous in donating their time and aircraft. Chuck Sisco (National Audubon Society) provided useful insights and made available maps of clearcut areas compiled by interns for portions of the Gifford Pinchot and Olympic National Forests.

I greatly appreciate the thoughtful discussions with Dr. Jerry Franklin on old-growth criteria and definitions, his review of draft reports on each forest, and his advice at various stages of the project. Dr. Krishna Rustagi provided needed expertise in timber inventory statistics. Discussions with Dr. Tom Spies, Dr. Miles Hemstrom, Dr. Jan Henderson, Dr. Tom Atzet, and Dr. Chris Topik also were fruitful.

Cooperation and assistance from the U.S. Forest Service in Region 6 began with the support of Regional Forester James Torrence. Bob Brown was very helpful in data downloading and explaining the intricacies of the data formats. John Teply and Al Burkhardt assisted with information on timber inventories. On the Mt. Baker-Snoqualmie National Forest, Bob Taylor (retired), Lyle Jack, Paula James, and George Larsen provided information, maps, and work space as did John Vosbough (Olympic National Forest), Mel Greenup (Siskiyou National Forest), Jim Mayo (Willamette National Forest), Clint Byrd (Mt. Hood National Forest), and Carl Geulich (Gifford Pinchot National Forest). Numerous other agency personnel on each forest were of additional help.

I end with a note of special thanks to the many individuals who volunteered housing for project personnel.

Peter H. Morrison

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Mature Forest Acreage on the Six Study Forests
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EXECUTIVE SUMMARY

The coastal region of Oregon, Washington, and northern California, reaching inland up the western slopes of the Cascade Mountains, is home to magnificent conifer forests unique in the world. These ancient forests are characterized by very old, large trees and a complex of animals and plants—all interacting to form the intricate "old-growth" ecosystem.

The ancient forests are a rich source of biological diversity, clean water, habitat for more than 200 species of fish and wildlife, quality outdoor recreation opportunities, and much of the beauty for which the Pacific Northwest is renowned. They also contain large volumes of valuable wood and are thus highly prized by the timber industry.

Nearly all of the old growth on private lands in the Pacific Northwest has been logged. The remaining ancient forests are located primarily on public lands, particularly the 12 "west-side" national forests* administered by the U.S. Forest Service. Results of the Forest Service's latest attempt to quantify the amount of old growth still left on the forests are found in recently released draft management plans, the final versions of which will determine use of these important lands over the next 50 years.

In this report, The Wilderness Society presents a detailed, technical analysis of the Forest Service's timber and vegetation inventories for six of the 12 westside forests—the Mt. Baker-Snoqualmie, Olympic, and Gifford Pinchot in Washington and the Mt. Hood, Willamette, and Siskiyou in Oregon.

It is clear from this work that the Forest Service's old-growth inventories in the draft forest plans are greatly exaggerated. The draft plans say that 2.5 million acres of old growth exist on the six forests. The Society's analysis shows that in total only 1.1 million acres—or 13

* The forests are: Mt. Baker-Snoqualmie, Olympic, and Gifford Pinchot (Washington); Mt. Hood, Willamette, Umpqua, Siuslaw, Siskiyou, and Rogue River (Oregon); and Klamath, Six Rivers, and Shasta-Trinity (California).

percent of the total net acreage* in the 6 study forests--meet the ecological definition of old growth developed by Forest Service and Bureau of Land Management scientists (Figure A). This is only 45 percent of the inventory claimed by the agency.

Even more serious, much of the inventory documented in this report is located in small stands (less than 80 acres) or within 400 feet of clearcuts or roads. These stands, totaling approximately 439,000 acres, have little biological value. Subtracting this acreage indicates ecologically viable old growth on the six forests is less than one-third of what the forest plans indicate.

Most rare of all is classic old growth--stands containing at least 8 big trees per acre exceeding 300 years in age or measuring more than 40 inches in diameter, the majestic "green cathedrals" of the Pacific Northwest. This study indicates that only 340,000 acres of these oldest trees still exist on the six study forests.

Low elevation, ancient forests are the most valuable and generally the easiest to access; thus, they face the greatest threat. Yet below 2,500 feet elevation, where plant and animal life is richest, only about 285,000 acres of old growth remain.

In some cases, the forest plans predict there will be more old growth in the coming decades than now exists. As an example, the draft plan for the Siskiyou National Forest lists an old-growth inventory of 443,000 acres. The Society's analysis shows only 141,000 old-growth acres currently on the forest, far less than the 181,000 acres that the Forest Service plan says will remain after 50 more years of logging.

The forest plans also will allow continued extensive fragmentation of old growth, destroying its biological value even more quickly than the number of acres alone indicates. Data from this analysis indicate that unless distinctions between old growth and the rest of the timber base are made in the final plan for the Gifford Pinchot National Forest, all viable old growth on this forest could be gone within three years.

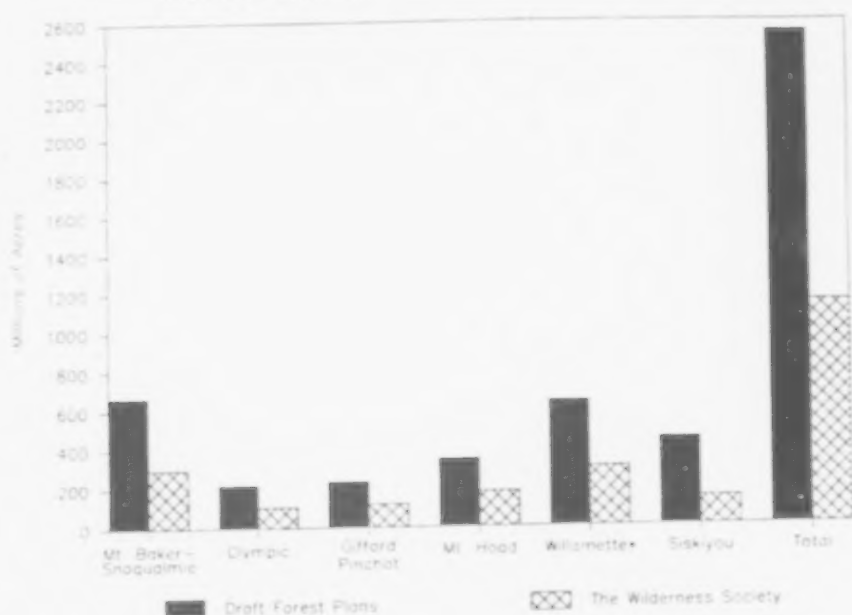
Contrary to the assertion that large amounts of old growth are already protected from logging, The Society discovered most of the remaining ancient forestland is outside congressionally-designated wilderness areas on the six study forests. In fact, this analysis revealed that more than two-thirds of the ever-dwindling ancient forests are not protected.

The discrepancy between Forest Service figures in the forest plans and the data presented here is readily explained. First, both agency planners and The Wilderness Society used data collected by the Forest Service between 1974 and 1986. However, The Society's study updated the Forest Service data to 1988.

In addition, the agency's forest plans employ a wide range of definitions in arriving at their estimates of old growth. In most cases the agency's inventories are comprised of old-growth acreage plus areas of mature sawtimber trees. These trees, while an important resource that may provide the old-growth forests of the future, do not meet the scientists' definition of old growth used by The Wilderness Society.

* Total net acreage of the 6 national forests in this study, excluding private and other lands within the forests' boundaries, is 7.6 million acres (USDA Forest Service, 1986).

FIGURE A: COMPARISON OF OLD-GROWTH ESTIMATES FOR SIX WESTSIDE NATIONAL FORESTS.



* The draft plan for the Willamette National Forest states that an additional 250,000 acres are large mature trees that will qualify as old growth in about 20 years. In this analysis, those additional acres are not included as old growth.

SOURCES: USDA Forest Service, Draft land and resource management plans, 1986-1987.

The Wilderness Society, Old growth in the Pacific Northwest: a status report, 1988.

To the scientific community, old growth is a special stage in forest development possessing ecological characteristics not sufficiently represented in mature forests. Only after 200 to 250 years do most stands begin to exhibit the characteristics of old-growth Douglas-fir forests: deep, multilayered canopies; the presence of old, large Douglas-fir trees; and abundant shade-tolerant associate tree species. Dominant trees in old-growth Douglas-fir forests vary from 200 to more than 1,000 years in age. The oldest climax forests may lack the Douglas-fir component and be completely dominated by large, late seral trees. While a wide range of tree sizes and ages is usually present, old-growth Douglas-fir trees typically have an individualistic form: deep, irregular crowns; broken tops; cavities; large branches holding accumulated organic matter and epiphytic plants; and deeply furrowed bark. Old-growth forests have gaps in the canopies allowing sunlight to nurture patches of understory shrubs, herbs, and tree seedlings. Numerous large standing snags and downed logs on the forest floor are also very important characteristics of old-growth forests. Snags are nesting habitat for old growth-dependent birds; downed logs provide habitat for many species and also serve as a source of soil building and a hospitable environment for future trees.

Combining mature and old-growth acreages in one category, as the Forest Service did, obscures the rarity of the ancient forests. This practice may well cause agency officials to misjudge the implications of their decisions concerning old growth, particularly in relation to logging, road construction, and other irreversible activities. Timber sales normally are scheduled in the "most decadent" stands; thus, it is the ancient forests that will bear the brunt of logging in the next decade.

The Forest Service uses its inventories primarily to estimate timber volume, growth rates, and stand condition. The Wilderness Society's project, on the other hand, is the first analysis that applies to the inventories the criteria developed by the agency's own Old-Growth Definition Task Group in order to estimate the amount of old growth. The Society's study used original Forest Service data and analyzed each timber inventory plot by forest type, tree diameter, age, height class, tree species diversity, and snag density. Each plot was then evaluated according to minimum old-growth criteria established by the task group.

Analysis of the inventory data enabled a determination of the amount of old growth present at the time of the inventory. Wilderness Society researchers updated this information to the present. In addition, by examining which plots are in planned timber sale areas it was possible on three of the national forests--Mt. Baker-Snoqualmie, Olympic, and Siskiyou--to estimate the amount of old growth that will remain in five years if current timber sale plans are implemented. During the updating process, additional data were gathered on the size of old growth stands, their landscape context, and their proximity to roads and clearcuts. The information was determined from aerial photographs in conjunction with Forest Service records.

This report provides a valid, scientific assessment of the amount of ecologically viable old growth remaining on 6 of the 12 westside national forests. It also describes the condition of the resource and, where available, the short-term plans to log it. In view of the results of this study, it is especially important that a similar analysis be conducted on the other six westside national forests. The Forest Service has the necessary information and should undertake such a study. Continued reliance on inaccurate and inflated estimates of the old-growth resource can only lead to decisions spelling a swift and final end to the ancient forests.

(The complete report is held in the committee files.)

Mr. P. MORRISON. I will let you read the document to see our methodology. It has been described in a variety of articles and other witnesses here have already discussed it.

Our inventory identified 1.1 million acres of old growth on six forests that we studied. The Forest Service draft plans claim more than twice the amount found in our study. It's important to recognize that the Forest Service's draft plans did not attempt to identify old growth, per se.

They attempted to identify old growth and mature forests and so, their numbers combine old growth and mature forests and they were never intended to be an old-growth estimate or an old-growth inventory. So, right now, our inventory on these six forests is really the only existing old-growth inventory. The Forest Service inventory, based on their own draft plans, is an inventory of old growth and mature.

I also wanted to emphasize that the Forest Service has lowered its estimates on many forests since our report came out. In the Gifford Pinchot, they originally counted 231,000 acres and just by subtracting acreage that had been logged in the last 7 years, they reduced their estimate to 198,000 acres.

The Mount Hood National Forest reduced their estimate from 346,000 acres to about 178,000 acres by incorporating data from the agency's most recent timber inventory, a step the Forest Service failed to take earlier.

The agency also reduced its estimate on the Willamette National Forest from 640,000 acres to 411,000 acres. These numbers are much closer to the estimates that I have for these forests, but these estimates still, in many cases, do not claim to be estimates of old growth, per se. They are estimates of old growth and mature.

The problem is that these new Forest Service estimates haven't filtered up to the Washington, D.C. level yet. The widely publicized estimates of old-growth forests in the Pacific Northwest are not current and are not the best estimates that the Forest Service has today.

I wanted to describe quickly our ongoing project on the Olympic National Forest, which is a pilot study where we are looking at—

Mr. VENTO. Maybe we can get to that in the question and answer period, as your time has expired, unless it's just a one sentence comment, Mr. Morrison.

Mr. P. MORRISON. Can I just say one sentence about that?

Mr. VENTO. Yes.

Mr. P. MORRISON. Well, on the Olympic National Forest, we have used aerial photography, land-set imagery and a computerized mapping system to map out all of the old-growth forests and all other old forest types on the Olympic Peninsula, and this project is essentially complete at this time. We still have some analysis to do on it.

We have the maps here today to show you what existed in 1982. We are in the process of updating this with the satellite imagery, which we have purchased, to a 1988 status. We have also flown over the Quinault District and have obtained recent aerial photographs with the help of Project Lighthawk and updated the Quinault District to a 1989 status.

[The prepared statement of Mr. P. Morrison appears at the conclusion of the hearing.]

Mr. VENTO. We'll get back to it during the questioning.

Mr. VENTO. We have next Mr. Charles Sisco, a forester at the National Audubon Society. Welcome and please proceed.

**STATEMENT OF CHARLES SISCO, WILDLIFE BIOLOGIST/
FORESTER, NATIONAL AUDUBON SOCIETY**

Mr. Sisco. Thank you, Mr. Chairman.

Mr. Chairman, my name is Charles Sisco. I am a forester and a wildlife biologist with the western region, National Audubon Society. My background on the old-growth issue goes back to the early 1970's, where I graduated from forestry school. I worked for the Forest Service for approximately 8 years.

The first decade of my career has been involved in laying out timber sales in old growth and harvesting old growth. The back half of my career, I guess, has been involved in saving old growth or at least, investigating it.

Over the past 3 years, I've been employed by the National Audubon Society in monitoring Forest Service and BLM old-growth logging with respect to the spotted owl. Today, I would like to thank the committee for the opportunity to be here and to testify, and I hope you get three basic lessons out of my testimony today.

First is that the Congress enacted the National Forest Management Act back in 1976, which essentially mandated the protection of old growth through the protection of an indicator species, in this case, the spotted owl, and the Forest Service chose the spotted owl back in 1978 as that indicator. It was not the conservation groups; it was the Forest Service.

Second, the Forest Service has been unable to implement protection of spotted owls in their forest plans because they have been given timber targets through the Resources Planning Act in the appropriations process. Since the forest plans have never been implemented to date in their final format, we are living with RPA targets from the late 1970's—5 billion board feet approximately, while the forest planning process targets the forest to sustain the old growth somewhere around 3.9 billion board feet.

The third point that I wanted to bring home is that the agency, in order to maintain the timber target level, has been unable to protect owl habitat and, as a result, the spotted owl management areas or SOMA's, as they're called, have moved from time to time and that's one of the reasons that we began the mapping project in the Pacific Northwest.

If I could have a couple of the charts up to show the committee and I will need to point to those, Mr. Chairman.

This is just one example of one ranger district on the Olympic National Forest and this is the Soleduck Ranger District up on the Olympic Peninsula, Washington State. On your right is the ranger district and the pink area are lands that have been clearcut or managed, and most of the harvesting has gone on since 1960.

In light green is the area that the Forest Service says is suitable owl habitat. Now, we have taken only the information from the Forest Service. We have not interpreted any data from the Forest

Service as the Wilderness Society has done, and that's one key distinction between our work.

On this map, I might point out, you'll see a high degree of fragmentation on this map. So, the old growth that remains on this district is a smaller percentage of what you see in green.

On this map, this is the same map, the Soleduck Ranger District, and it shows the spotted owl management areas and how they have changed through time. The original SOMA network for the Olympic National Forest was 17 sites, 17 SOMA's to maintain a minimum viable population, to maintain old growth.

A few years later, that was increased to 29. On this ranger district, that meant that seven of the SOMA's were allocated to this ranger district, and those are in pink, Mr. Chairman. Two of those SOMA's were set up in capable habitat. There was never any old growth there and there were never any owls there. In order to meet their timber targets, this district had to set up these SOMA's in these areas in order to cut old growth elsewhere.

Now, with the recent decision from the Forest Service in the SEIS, the Supplemental Environmental Impact Statement, they have moved these SOMA's. For example, these two SOMA's have been dropped at the bottom. This one SOMA has moved to the north and that's identified as green. The new SOMA locations are in green.

In this instance, this is high elevation timber. There's very little old growth here, as Mr. Morrison data has pointed out, and there are no owls here. In this SOMA, however, there are two pairs of breeding owls, and if you will note, in the black dots, it's a timber sale that was laid out and was almost sold last year within the spotted owl management area, until we went to court to stop it.

This is not a rare example. In my travels in the Pacific Northwest over many national forests, this goes on all the time. In the Wenatchee National Forest in Washington State, they never even had a SOMA network established until last year. It was all on paper. And every timber sale that I checked on or every SOMA I checked on in one ranger district had a timber sale in it. So, this is the kind of mobile SOMA plan that's been going on.

Mr. VENTO. You've used your time and I hope concluded the point you wanted to make. There may be some questions that the members have, Mr. Sisco.

Mr. SISCO. Yes, Mr. Chairman. My last sentence would be that the Forest Service has been unable to implement old growth and spotted owl protections because of the timber targets that come down through the appropriations process under RPA.

Mr. VENTO. That's important. The language that they've put in the appropriation bill does have an impact and it's sort of a negative one, I guess. I see your point. We'll get back to that in a moment.

Mr. SISCO. Exactly. The two—the National Forest Management Act and RPA conflict.

[The prepared statement of Mr. Sisco appears at the conclusion of the hearing.]

Mr. VENTO. We have next Kent Robinson, the policy and programs analyst for the National Forest Products Association.

**STATEMENT OF KENT S. ROBINSON, POLICY AND PROGRAMS
ANALYST, NATIONAL FOREST PRODUCTS ASSOCIATION**

Mr. ROBINSON. Thank you, Mr. Chairman.

I would like to begin by revisiting a concept that we talked about earlier on the industry panel and the fact that both the old-growth and the spotted owl issues are merely surrogates for a bigger question of forest land allocation. We find, of course, in Oregon and Washington, the draft forest plans and the forest planning process is dealing with that.

Both of these issues belong in that forum. We're not sure that we're seeing the preservationist community carrying through that forest planning process. We see appeals and court litigation at a time when perhaps we ought to be sitting down and negotiating. We found negotiations in other regions. Perhaps this is an opportunity here.

Until the results of ongoing old-growth surveys are available, NFPA can only accept the best information that it can get. At this point, we see the Forest Service and the BLM timber inventories as being those sources of acreage.

In response to Mr. DeFazio's question earlier on, we're holding at 7.5 million acres of old growth in Oregon and Washington; 6.2 million acres on the national forests between the two States; BLM acreage of 406,000 acres; and national parks at 943,000.

Currently, in the Pacific Northwest, 4.2 million acres of old-growth timber are protected in national forests, wilderness areas, research natural areas, and other administrative set-asides. I guess the point that comes from this listing of acreage is that over time, there has been a steady chipping away at the timber-land base.

We saw in the 1984 Oregon and Washington Wilderness bills, reductions to accommodate low elevation, old-growth set-asides. We see here early in the first panel where a number was pressed on the representatives from the preservationist community and yet we're never sure whether the 340,000 acres of nonecologically significant, mature timber will be available to the timber industry.

This waffling on final numbers and goals gives us a great concern. There's a lot of fear inside the industry that this process is never going to end. We would hold that there's 3.3 million acres of timber available and we see that lasting for the next 50 years.

Quickly, I would like to move on and point out that interim independent old-growth inventories conducted by preservationist groups really give us answers and results that we're not sure that we can count on. We have variation in definition. We spent a lot of time on that today. Superficial surveys end up in biased estimates. And we find that, in fact, these surveys are designed to make the political point that these groups choose to put out into the press.

First, in the case of the document that was presented earlier, "Old Growth in the Pacific Northwest: Status Report," we find a very narrow definition of old-growth. That very narrow definition throughout 439,000 acres of timber land that might potentially have some important biologic, ecologic characteristics.

In fact, we saw Mr. Frampton here today earlier on point out that maybe these very small areas might be very useful; and yet, the surveys themselves toss these out as though they're not valid.

The society then based their inventory on the existing Forest Service timber inventories. These inventories were designed for the collection of volume statistics on a forestwide basis and not for the sampling of local, ecologic characteristics, the delineation of old-growth stands that seem to be necessary to resolve the conflict.

Finally, I think that it would be interesting to point out that there is quite a statistical error in this sample. Estimates can range anywhere from about 900,000 acres, all the way up to 1.3 billion acres, with the Wilderness Society even today saying 1.5 billion. Their inventory does not know what they're coming up with. This inventory is a loose process and we can't trust it.

Until we get good information through the agencies and the Appropriations Committee has seen to provide financing for this, we're really going to have to stay with the acreage estimates that we saw earlier.

Very briefly, to touch on the tie between old growth and spotted owls, while mature and overmature timber stands often provide acceptable habitat for the owl, the owl can exist outside of these conditions and undisturbed old growth is not a universal requirement for the spotted owl and, in fact, we have examples of breeding pairs of owls living quite successfully on the Wenatchee National Forest in areas of partial harvest.

The bigger question in the owl/old-growth issue to address is, rather than how the spotted owl and old-growth forests are similar, the committee should focus on how spotted owls live successfully in habitats other than old growth. We need to find out what those unusual stand characteristics are because those provide the key to compatible management between the wildlife species and the timber programs that the National Forest Service has been charged to conduct.

I'll skip through in the interest of time and answer any questions when we get around to that.

[The prepared statement of Mr. Robinson appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Mr. Robinson.

Mr. James English, the executive vice president of the Idaho Forest Industries, Inc., Coeur D'Alene, Idaho. Welcome.

STATEMENT OF JAMES M. ENGLISH, EXECUTIVE VICE PRESIDENT, IDAHO FOREST INDUSTRIES, INC.

Mr. ENGLISH. Thank you, Mr. Chairman.

I am Jim English, executive vice president of Idaho Forest Industries. My company has sawmills in Coeur D'Alene and St. Anthony in Idaho, and one in Medford, Oregon.

Restrictions in the timber supply due to arguments over Federal land allocations have reached severe proportions in the northern Rockies and the Pacific Northwest, threatening the future of our mills and many others. As I will describe, however, this issue is not confined to these regions.

As a sidelight here, our mills in north Idaho have gone from a 3 year to a 1 year timber under contract, and in southern Idaho, in St. Anthony, from a 3 year to a one-half year under contract.

The Forest Service estimates that the issue of old-growth management has been raised in at least one appeal of every national forest plan in the country. In these appeals, the issue has often been stated in the more specific context of even aged and uneven aged timber management, selection of clearcutting as a management and harvest system, biologic diversity and wildlife management issues such as the spotted owl or the timber wolf.

The issue has also arisen in appeals of local project decisions. For example, in the intermountain region, including Nevada, Utah, Wyoming, and southern Idaho, approximately 75 percent of the timber sale appeals filed last year dealt with the old-growth issue. Virtually all the plan and project appeals filed on the seven national forests in Idaho include old growth as an issue.

In region 5—that's California—at least 20 appeals of project decisions have addressed the issue of old growth. These have included appeals of fire salvage sales where salvage and reforestation efforts are needed to rehabilitate the burnt land.

Yet the Forest Service's decision to salvage has been challenged in an effort to leave the dead, old-growth timber on vast acreage of land.

In the Pacific Northwest region—that's Oregon and Washington—of the 48 timber resource appeals currently pending at the regional office, fully 88 percent address the old growth and spotted owl habitat issues.

Finally, in Forest Service region 9—that's the Lakes States and the Northeast—where 110 national forest plan appeals have been filed, appellants have raised old growth as an issue in at least 40 percent of the appeals received by the agency.

In many cases, the issue has been raised indirectly in both plan and project appeals in the context of protecting specific types of wildlife habitat or maintaining biotic diversity.

However, in region 9, the average age of the forest under attack is only 70 years. These national forests were acquired by the Federal Government in the 1930's under the Weeks Act. They were heavily cut-over lands. They can hardly be termed an ancient forest of primeval uncut forest.

The inherent difficulty in reaching a specific definition for old growth has made the issue a convenient and fashionable one with which to rally public support for attacks on Forest Service management.

For example, preservationists have called for public support to save the old lodgepole pine forests of the Rocky Mountain region by setting aside large areas as wilderness or other special designations which do not allow active forest management. They argue that Forest Service management of these stands will result in the loss of many acres of timber if not otherwise protected.

However, we cannot simply preserve these blocks of old lodgepole pine forests as we witnessed last summer, I am sure you recall too clearly how the forests of Yellowstone National Park suffered the results of such preservationists' efforts. Ironically, these protected old forests of Yellowstone were extremely susceptible to fire and over 1 million acres of old-growth forest burned in and around the park.

The old-growth argument has also been used in an effort to allocate preserves the second-growth stands of hardwoods in the Lake States and Appalachian National Forests. In the February 1989 report by the Wilderness Society, entitled, "Mountain Treasures at Risk," the Wilderness Society argued that old-growth hardwood stands of the southern Appalachian region must be protected; yet these forests are barely 80 years old.

In Wisconsin, appellants want to allocate in the forest plans large blocks of contiguous, mature forest to maintain the biological diversity of the region. It is worth noting, however, that the forests of the Lake States generally average only 70 years of age, and much of the land under debate is forested with stands of aspen trees only 40 years old.

Clearly, the very argument that old-growth timber must be protected has been used in many contexts and to describe forests of such varying ages that even the proponents of this issue cannot agree on a definition. The old-growth issue has been expanded to address the more basic issue of land allocation, and it is used simply to rally support for broader efforts to stop the harvesting of timber on large portions of our national forests.

Thank you very much for letting me talk today.

[The prepared statement of Mr. English appears at the conclusion of the hearing.]

Mr. VENTO. Thank you for your testimony and for trying to stay within your time. I appreciate the cooperation of all the witnesses regarding that.

There are a number of questions that I have. I was most interested, Mr. Morrison, in your comments about the mapping, so I'd like you to give us a quick summary of the mapping that you didn't have a chance to point out during your testimony on the Olympic National Forest. Are those the correct maps? Are those Mr. Sisco's maps?

Mr. P. MORRISON. We both have maps of the Olympic National Forest.

We have started a mapping project to complement our previous inventory work. When we talk about ancient forests or old-growth forests, one question is, how much old-growth forest is there. The other is, where is it. And also, what is its landscape context, how is it configured?

Many of the important questions about ancient forests can only be answered by actually mapping it and then doing some complex analysis that we're currently capable of doing using computerized mapping systems.

So, our project on the Olympic National Forest has been a pilot study to see how far we can go using existing Forest Service field data, both forest ecology, plot data and timber inventory data. In this case, it's different from what we did in our inventory study where we only used timber inventory data. In our mapping work we also used USFS forest ecology plot data.

We plotted all of these field plots onto ortho photo quads which are high elevation aerial photographs and then we used Forest Service color resource photos. We had extensive cooperation from Forest Service personnel on the Olympic National Forest for this

project and they helped in developing methodology, obtaining materials and data, and reviewing our work.

So, we have plotted out all of these——

Mr. VENTO. Let me interject a question at that point without, I hope, destroying your train of thought.

Is it your belief that the Forest Service and other professional forest scientists are going to move to a common definition of ancient forests?

Mr. P. MORRISON. Well, I've been a party to a number of old-growth inventory and definition meetings that have been convened by the Forest Service for all of region 5 and region 6, Oregon, Washington, and California, and there has been a consensus at those meetings which involved top people in the Forest Service, people in the conservation organizations, and people in the timber industry.

There has been a consensus to use the same definition that we used in our inventory work, which is the old-growth definition task group, interim old-growth definition.

Now, that consensus may not have filtered up to Washington, D.C. yet, but the attempt has been made on the part of the Forest Service and in all other State and Federal agencies to reach a consensus on definition.

Mr. VENTO. Well, that was my impression, that there was a convergence going on about this. However, there are no solid figures coming from the Forest Service. I think we're getting some preliminary results from individual scientists like yourself and Mr. Sisco who are doing work in this particular area.

It is a little confusing. When the Forest Service comes by on Thursday, I don't know what they're going to agree to or what they're going to propose, but I expect that they would tell us what the model is that they're going to use.

Mr. P. MORRISON. Well, I'd like to emphasize that I've worked closely with the Forest Service scientists and some of the people here today—Jerry Franklin and Thomas Spies—have reviewed the work that I've done quite extensively and they, as far as they have found, have told me they think it's the best estimate. Jerry Franklin spoke at a number of conferences in the last year and emphasized that the Wilderness Society numbers were the best estimates available today.

Mr. VENTO. Well, that was my impression. I was surprised about the lack of enthusiasm for it.

Mr. VOLKMER. Just 1 minute. I think, in all fairness, since Mr. Franklin is not going to be able to be with us Thursday, and the people that are going to be with us have not worked really on this, I think at this time, I'd like to ask Mr. Franklin to come forward, even though he doesn't have a statement, and to sit at the table.

I think he can join in with this discussion. I hate to always see a one-sided discussion when somebody is sitting out in the audience and not being able to participate.

Now you have Mr. Franklin and you can ask him about it.

Mr. VENTO. Well, if he has any comment, he can make his comment.

Mr. FRANKLIN. Well, thank you, Mr. Chairman. I appreciate the opportunity. I think in regard to a definition of old growth, that we

do have a consensus on what old-growth forests consist of in the Douglas-fir region. Tom Spies and I have developed a generic definition of old growth which is intended to be broad enough to apply to any kind of forest type in the United States.

So you'll be hearing from the Chief and from Tom about that on Thursday.

Mr. VENTO. That's right. It was their choice that you testify with them. I understand, Dr. Franklin, that you couldn't be here on Thursday.

Mr. FRANKLIN. I apologize for that. It's not their doing. I have a student who's taking her final exam for her doctorate on Thursday afternoon and I simply could not change it.

Mr. VENTO. But there is a convergence at least with regard to this definition. Are the principal parts of the Wilderness Society being recommended within the Forest Service as the basis for an old-growth definition?

Mr. FRANKLIN. Yes, that's correct.

Mr. VENTO. Does the gentleman have any further questions?

Mr. VOLKMER. Yes, if the gentleman would yield.

Mr. VENTO. I recognize the gentleman from Missouri.

Mr. VOLKMER. I just want to verify with what Mr. Morrison has basically said, that we are moving to where we will have a consensus basically between the environmental groups and the Forest Service on a definition of old growth; is that correct?

Mr. FRANKLIN. That is correct, and that was done partially as a consequence of your appropriation last year to the Forest Service and it was a group that was convened by John Lowe, the Assistant Regional Forester in region 6. It did bring a group representing everything from industry to the Wilderness Society together, and a basic agreement was reached on a working definition of old growth that would be used.

Mr. VOLKMER. And has that definition been defined now? Has it actually been put in words?

Mr. FRANKLIN. Oh, yes. It's in print in many locations.

Mr. VOLKMER. Can we get a copy of that?

Mr. FRANKLIN. I'm sure we can get you a copy of it.

Mr. VOLKMER. All right. You know and Mr. Morrison knows and everybody else knows, but I don't know.

Mr. FRANKLIN. Perhaps. But in any case, yes.

Mr. VOLKMER. Maybe we can make sure that the Forest Service gets us a copy of that by Thursday so that we can look at it.

Mr. Morrison, will you agree that the definition I'm probably going to get Thursday from the Forest Service would be an agreed definition?

Mr. P. MORRISON. I certainly can.

Mr. VOLKMER. You can agree with that?

Mr. P. MORRISON. I certainly can. That's the definition that we have been using for, as George Frampton said, 18 months now.

Mr. VOLKMER. Fine. You can go ahead.

Mr. VENTO. The gentleman was on his own time.

But I was just going to say that the issue here is if there's a reduced area then forest management plans don't reflect the reduced areas, is that right, at the current time?

Mr. P. MORRISON. Right. The current forest plans do not reflect the agency's most current estimates at this time. I think this whole issue developed before the Forest Service realized they needed the data necessary to address the important problems and they haven't moved as quickly as some of us might have hoped, to gather that data and make it available.

What the Wilderness Society has been trying to do is to show that it is possible.

Mr. VENTO. Mr. Robinson, if they don't reflect the most current data with regard to this, then does that mean that the allowable cuts would be incorrect or improper, given the overall mandate of the Forest Management Act?

Mr. ROBINSON. Anytime you take land from the timber land base, in a long term, yes, you're going to affect the long term—

Mr. VENTO. No, but if they have the wrong information in the plans with regard to the amount of old growth and how much is left, if they're saying there's more and the definition ends up indicating that there's less, then would the forest management plans have to be revised to address that?

Mr. ROBINSON. Well, whatever the Forest Service has to follow through their process to figure out how they're going to handle it in the planning process.

Mr. VENTO. So that's what you said. You thought that's what ought to happen. That's the basis of these court cases right now, that the forest management plans do not take into consideration at least one element, the owl. At least, that was the tripwire at this point. But apparently underlying the owl is a whole forest of problems.

Mr. ROBINSON. From what I've seen here today, yes, there is a problem in what the Forest Service did in their forest planning. There are some issues that need to be addressed. But until we have quality data, we can follow the methodology and feel comfortable in how it was put together. We have to remain with those figures that we have the most trust in.

Mr. VENTO. The difficulty that I'm getting back from you is that if we have to do that, then I guess you have to stay in court.

I mean, if you're happy with the status quo, then that's what the status quo is. In other words, the system has failed, hasn't it?

Mr. ROBINSON. I think part of it though is, you're asking us to make policy decisions based on information that can vary by hundreds of thousands of acres.

Mr. VENTO. Well, that's what we're being asked here. We've got the same problem.

Mr. ROBINSON. I think the thing I would like to add is that according to Mr. Frampton, he foresees 2 years to finish an inventory. I believe the Forest Service could finish—my understanding is that their satellite imagery work will end in 1992. They would have a complete inventory by that time.

I think in the interim, there's plenty of old growth that we can go ahead and do whatever harvesting we need to do in mature stands, and we can come away, in 5 year's time, with a long-term plan and carry on from there. If that means amending the forest plans, then that's the route we need to go.

Mr. VENTO. Don't you think there has to be some sort of an interim plan since there is apparently disagreement and deficiencies regarding the data that exists. I think you have admitted that there are deficiencies. Isn't there a necessity for some sort of interim plan that would safeguard some of the resources along with some of the multiple-use mandate of the Forest Service?

Mr. ROBINSON. We would like very much to carry on a timber program—

Mr. VENTO. Well, I understand that. That's why I'm saying we need an interim plan so that we don't have economic dislocation and job loss. Wouldn't that be correct?

Mr. ROBINSON. Perhaps my tone was wrong. Yes, I'm agreeing with you that we need to have something to get timber to the mills on a short-term basis, yes.

Mr. VENTO. OK. Well, my time is long expired.

Mr. Morrison.

Mr. S. MORRISON. Thank you, Mr. Chairman.

Mr. Sisco, I would like to explore a little further this conflict that you have described to us—the portable spotted owl management areas. It sounds like the Forest Service is having the same trouble there that the Air Force is having with the MX missile. [Laughter.]

Mr. SISCO. Maybe they got blueprinted on the same plan.

Mr. S. MORRISON. I understand that you indicated that some of the management areas were actually located where there were no owls, there was no old-growth base.

Mr. SISCO. Yes, Mr. Morrison. If I could get that map back up, I think it would be a little bit easier to explain to you what's going on.

Back in 1978, the Forest Service chose the spotted owl as their indicator to protect old growth. Right after that, they decided on some research that was basically done on fruit flies, that it was going to take 500 of these sites in Oregon and Washington to maintain a viable population of owls under the National Forest Management Act guidelines.

So, they split those areas up by each forest and by each district. On this district, they ended up with five SOMA's that were then increased by two to seven SOMA's by about 1982. The problem on this district since the forest plan was not in place, that these areas were not withdrawn from the timber base. In other words, the cut-level never dropped.

So, in order to maintain the cut level, the district ranger had to put those spotted owl management areas in places where it wouldn't impact the timber program. In this case, the two at the top, Snider Ridge, are incapable SOMA's. If we had the other map up, it would basically be pink.

In other areas, for example, Rugged Ridge, where you see the pink area at the bottom, that was a SOMA for almost 10 years until December of this year, when the Forest Service was given new guidelines to increase the SOMA size to 3,000 acres.

Now, in order to increase the SOMA to 3,000 acres, they would have had to cancel two timber sales that were in fiscal year 1990 programs, so they moved it to the North.

Mr. S. MORRISON. Let me break in only to say that part of your allegation was that these cuts are driven by the appropriations process here.

Mr. SISCO. And RPA.

Mr. S. MORRISON. So for the Olympic National Forest, which is the one you're concerned with here, that no way that cut could be achieved without conflicting directly with the management plan and the selection of the spotted owl as an indicator species?

Mr. SISCO. That's correct.

Basically what the Olympic National Forest has been cutting each year is about 230 million board feet. This year, their target was 113 million board feet in order to protect the SOMA network where they had owls and where they had old growth. Now, that meant that the Forest Service finally had to jump off this crazy merry-go-round that they'd been on for 10 years in order to get the cut down to a sustained yield level and maintain the forest plan direction, which said that you have to keep spotted owls in viable territory.

Mr. S. MORRISON. And in your experience, is the Olympic Forest the worst in this management program?

Mr. SISCO. I think the forest that we—in 1986, when I started to focus on the networks, I looked at the forests that had high target levels and had the worst amount of old growth. In other words, the acreage was smallest. That was where you found the problems. The Olympic, the Rogue River, the Siuslaw, the Wenatchee was a serious problem, and what happened was, when we started to look at the timber sales, we found timber sales in the middle of these SOMA's because that's where all the volume is. The old growth is in these spotted owl sites.

One of the sales that you're probably familiar with was the Ba-keoven timber sale over on the Natchez Ranger District. In that case, the Forest Service had built a \$250,000 bridge across the river to a sale that had never been sold yet. When we looked at the timber sale, the units were right in the middle of the core area.

On the Bogy II timber sale on the Soleduck Ranger District, the Forest Service, the taxpayers had to eat \$500,000 on a sale that was laid out in a SOMA area when they found out that the nest area was right in the middle of one of the sale units.

I'm not trying to beat up on the Forest Service in this process—

Mr. S. MORRISON. You're doing a pretty good job.

Mr. SISCO. I thank you.

I really think the points I'm trying to make—and the reason I left the Forest Service, to be quite frank with you—is that they cannot do the two things that the Congress has mandated them to do. One, the National Forest Management Act and also, the RPA.

Mr. S. MORRISON. That's partially our fault here and the pressures that we put on from several different directions. Thank you for those comments.

Dr. Franklin, not so much a question, but just to say that your name has come up so often as being the person that perhaps has found the common thread that will bring Mr. Robinson and Mr. Morrison and others at the table together.

We certainly hope that's true because I think from everything we've heard in this hearing and will continue to hear, that until we have the definitional base to do an accurate inventory, that it's hard to figure out exactly what we're going to do from a policy point of view. So, I congratulate you.

Mr. FRANKLIN. Thank you.

Mr. S. MORRISON. Thank you, Mr. Chairman.

Mr. VENTO. Chairman Volkmer.

Mr. VOLKMER. Thank you.

It appears to me that from what I've heard here—and I'm sorry I wasn't here earlier, but everybody up here has something else going on at the same time—that before we really get an inventory that everybody is going to be able to agree with, it's going to be a couple of years. Do you disagree or agree on that?

You'll have one earlier, but I said one that everyone could agree on.

Mr. P. MORRISON. Well, I think it's a matter of—I'm not actually convinced that we're going to have agreement in a couple years either. On the Olympic National Forest, which we've got mapped out here, we will, within a few weeks, be able to tell you how much forest is currently available in many different old-forest categories.

Mr. VOLKMER. You'll be able to show us the nesting areas?

Mr. P. MORRISON. Excuse me?

Mr. VOLKMER. You'll be able to show us the nesting areas and the old-growth areas?

Mr. P. MORRISON. No, we're not looking at spotted owl habitat. We're just mapping out old-forests types and we will be able to show where the——

Mr. VOLKMER. Old growth?

Mr. P. MORRISON. Well, different old-forests types, not just old-growth forests, but we're looking at not just old-growth forests that meet the old-growth interim definition, but stands like high elevational old forests, which we don't have an existing definition for. So, we'll be able to show you where all those different old-forest types exist.

I think that will be useful in the light of that we don't have definitions for some forest types. The only forest type that we have a good definition for are the western Hemlock and Pacific silver fir types—the forests that have a large Douglas-fir component to them.

There are some high elevation forest types we don't have definitions for yet. We also don't have definitions for east side forest types. Those are areas that we need Forest Service scientists like Jerry Franklin and Thomas Spies to work on. We need money allocated by Congress to address definitions on other forests where we don't have good definitional work at this point in time.

Mr. VOLKMER. Really what I'm trying to get to is the fact that even if we have a general agreement somewhere, eventually along the line of how to treat this whole problem, it's going to take time to get there. The day, to that point, is not going to be done tomorrow or in 30 days or 6 months or 1 year or even 1½, maybe 2 years.

The thing that concerns some people is in the meantime, what happens out there? Is everything shut down? I don't think anybody really wants—well, maybe there are a few—but I think most

people really don't want that to happen. How do we bring about a solution whereby we can see timber continue to be cut and not have lawsuits and everything else over that?

Mr. SISCO. Mr. Chairman, perhaps I could best address that. If I could get that map back up that I had, we've done an exercise, as Mrs. Unsoeld has mentioned, on the Olympic National Forest and, in a number of cases, what we've done is we've taken a look at the timber sales that the Forest Service gave the court as being suitable owl habitat. Now, we've identified a number of those areas that were not owl habitat. That was some volume, about 20 million board feet.

In addition to that, we've identified a number of areas that are isolated pockets of timber and in a third category, you'll notice where I mentioned where that SOMA had been moved to the north, from the pink to the green. There were three timber sales there that were then cancelled when that new SOMA site was moved.

All told, we have found about 65 million board feet on that district that could be put in the pipeline for fiscal year 1990. We've been told by the Forest Service that's going to take them too long to get it out, they have to go back and redo EA's and that sort of thing.

So, I think some direction from Congress would help get that volume into the pipeline when we identify it.

Mr. DEFazio. Would the gentleman yield briefly on that, Harold?

Mr. VOLKMER. Yes.

Mr. DEFazio. What was the proposed volume on that district because I don't know this forest at all.

Mr. SISCO. The proposed volume for this year was 113 million board feet and there are four districts. So, I would imagine that they were down—the two districts that cut the most are Soleduck and Quinault, so I imagine their targets were somewhere between 35 and 40 million board feet.

Their old targets, Congressman DeFazio, were about 90 million board feet, but then again, those were not under the forest planning sustained yield.

Mr. DEFazio. I thank you.

Mr. ROBINSON. Mr. Chairman, if I may?

Mr. VOLKMER. Yes, Mr. Robinson.

Mr. ROBINSON. Thank you. I guess my only point to this is it's wonderful that you take an alternate sales site, but what's to prevent a preservationist appeal once the sale finally reaches on this expedited manner?

Mr. VOLKMER. Well, that was going to be my next question. I think we must recognize the fact that if the Forest Service does and prepare sales and goes about preparing sales that are, maybe, a little bit not within exactly that forest plan that they've been working with, and then they propose those sales and somebody else comes in—not you, not anybody in this room—but somebody else disturbed about that because, hey, that shouldn't be cut up there and then they appeal that one or they file a lawsuit on that. Do you understand? And the Forest Service has to follow the letter of the law in preparing that sale.

Mr. ROBINSON. Yes, Mr. Chairman.

Mr. VOLKMER. So, you think it's not a simple solution where some people have come up here and said, there's plenty of timber out there to cut, why don't you go cut that timber, don't cut this timber, go cut that timber. You just can't do that. Nobody is going to let them do it today.

Mr. SISCO. I think the best way to answer that, Mr. Chairman—and it's an excellent question because we've been sitting down at the table with the timber industry. They have come and said, well, what happens if somebody else walks in or what happens 10 years from now.

I think Congresswoman Unsoeld has probably given the best solution to that in that we draw a line around certain areas on the national forests where intensive forest management will occur as long as riparian corridors are protected and that sort of thing. There are minimum management requirements for protecting fisheries, but I think that is one alternative that we could look at.

Mr. VOLKMER. Well, I'm a little curious to follow this lead—he's no longer here, but the gentleman from Washington, Mr. Sid Morrison—we heard earlier from the first panel—asked the question, if we could all sit down and agree, the major parties involved here in this, and say, OK, this area is going to be verboten, no cutting. This area over here you can cut, this area you can cut, this area you can cut and you can't cut here.

If we ever get down to that and let's say we could do that, even write legislation setting up and referring to maps and that's all agreed and done so we can get down this road, we'd have to put in there—and I heard Mr. Hair say, no, you can't do it because everybody has a constitutional right to sue.

We'd have to put in—before I'd even want to fool with it—no suits, no appeal. That's it. Do you understand? That's the only way it's going to work.

Mr. SISCO. I hear you, Mr. Chairman.

Mr. VOLKMER. I don't care what Mr. Hair says.

Mr. ROBINSON. Mr. Chairman.

Mr. VOLKMER. Yes.

Mr. ROBINSON. Continuing on that thought, our discussion here has gone to tighter and tighter, and smaller and smaller areas.

Mr. VOLKMER. Yes.

Mr. ROBINSON. A review of the injunctions, however, seem to be moving in a larger and larger direction, larger and larger land areas where again, we're seeing ourselves falling back to the land allocation question that this is not just some small area. It's getting larger and larger as the court injunctions go on.

Mr. VOLKMER. Well, I understand that. I understand your viewpoint. My viewpoint is just a little bit different. From what I see and hear, I understand from the first panel and from Mr. Morrison and Mr. Sisco and others that the area that they say we now have in old growth is somewhere around 1 million acres, around that, 1½; is that right?

Mr. P. MORRISON. Well, I would say probably about 2.4 million acres on the west side of Oregon and Washington, including all ownerships.

Mr. VOLKMER. National forests.

Mr. P. MORRISON. Just on national forest lands, it's probably about 1.5 million acres.

Mr. VOLKMER. About 1.5. What about BLM?

Mr. P. MORRISON. Well, the estimates for BLM lands range from about 400,000 to 450,000 acres on BLM lands.

Mr. VOLKMER. So, you're looking right at 2 million acres then?

Mr. P. MORRISON. Right.

The BLM estimate is not necessarily based on the agreed upon definition of old growth. It's based on some inventory data that is also perhaps out of date. So, that may be a somewhat inflated estimate.

Mr. VOLKMER. All right. Then as I understand the testimony from the Audubon Society, we have about 600,000—somewhere around that figure—on wilderness. Now, take that out of the 2 million and you're talking 1.4, if that figure is right.

Mr. P. MORRISON. What we've estimated is based on agency data for national parks which is very loose. There's no good data at all on national park land now. But from their data, and our estimates on wilderness areas, we've estimated 800,000 acres in wilderness areas and national parks.

Mr. VOLKMER. All right. What I'm trying to—

Mr. P. MORRISON. So that leaves about 1.6 million acres.

Mr. VOLKMER. You've still got 1.2 million or so left outside of those areas which are already protected. Surely we could work something out, Mr. Robinson, for an interim until everything else is done, to set aside areas that could be cut somewhere in those national forests and preserve some of the economy out there anyway, a way of life for some people.

Mr. P. MORRISON. I agree, and we're in the process of finishing our map of the Olympic National Forest. Once we have that finished, we will share that with the Forest Service. The Olympic National Forest has already requested that they get our computerized map in a digital form so they can implement it on their geographic information system. And we will work with them in a process of again, identifying areas that aren't critical old-growth areas, that could be allocated for harvest at this point.

Mr. SISCO. Mr. Chairman, perhaps I could add somewhat to that, too. This discussion so far has just been on the national forests.

Mr. VOLKMER. Yes.

Mr. SISCO. The Olympic National Forest supplies only about 12 percent of all the timber off the Olympic Peninsula.

Mr. VOLKMER. Is there much private ownership?

Mr. SISCO. Most of it is private ownership.

Mr. VOLKMER. Weyerhaeuser has quite a bit out there?

Mr. SISCO. Weyerhaeuser has ownership in it, ITT, Ranier, James Goldsmith, who owns Cavenham. The point to be made is that the harvest on the Olympic Peninsula has been averaging 2 billion board feet—over 2 billion board feet—for the last few years. The Olympic National Forest is cutting 230 million board feet out of that total volume—10 to 12 percent.

So, out of that 2 billion board feet, over half goes into the log export market.

Mr. VOLKMER. Well, right now, this committee has no jurisdiction over that.

Mr. SISCO. I understand.

Mr. VOLKMER. Neither does Interior.

Mr. SISCO. Mr. Chairman, I think what we just want to do is to put that in context so that we understand that the Forest Service is a very small player in the total log-flow volume and while we're sitting here beating up on the Forest Service, we've got billions of board feet going to Japan. So, it's a major heartburn for a lot of smallmill owners, too.

Mr. VOLKMER. Correct. You need to talk to Sam Gibbons.

Mr. ROBINSON. Mr. Chairman.

Mr. VOLKMER. Yes.

Mr. ROBINSON. If I might point out, to complement that answer, is that there are a lot of communities down in southern Oregon that don't have any connection to the log export problem at all, and yet they are still facing the old-growth/spotted owl issue and the two issues are quite separate in much of the Pacific Northwest.

Mr. VOLKMER. Well, for sure, this committee right now can only address—at least my subcommittee—can only address the question of the national forest lands. I can't even touch the BLM.

Mr. VENTO. Well, for the purposes of discussion, I think to avoid the whole export issue would be a mistake. So, I don't think you should feel constrained. Obviously that is a problem if only 12 percent of the wood is coming off of the Olympic Peninsula. How long is it going to be before the Federal lands use up the old growth that is present there at this particular rate, Mr. Robinson?

Mr. ROBINSON. I'm sorry.

Mr. SISCO. Mr. Vento, perhaps I could answer that. There's a report that just came out that was done by the Port of Port Angeles for the timber industry. It was done for the Olympic Peninsula because the Port of Port Angeles is a very large log export port.

This report shows that the total volume is going to be reduced by about 65 to 70 percent on the Olympic Peninsula. The reduction will come from about 2 billion board feet down to 300 to 400 million board feet according to this independent analysis that was done.

Mr. VENTO. By when?

Mr. SISCO. By about 1995, it will begin to drop off and it will stay there for 40 years.

Mr. VENTO. Well, the Appropriations Committee keeps funding money and keeps demanding these particular types of cuts. This is one of the only places in the country where we're making any money cutting timber, so we want to keep going. I can understand that. But the fact is that there is a real problem in terms of supply. It just isn't going to be there. Plus we're doing a lot of other things in the same process.

Mr. Smith.

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman.

Mr. Morrison, in your opinion, can spotted owls exist in mature timber?

Mr. P. MORRISON. Well, the optimum habitat for spotted owls coincides quite closely to what we consider to be old-growth forest based on the old-growth interim definition.

Mr. R. SMITH of Oregon. Is old growth and mature the same thing?

Mr. P. MORRISON. No. Old growth and mature are very different.

Mr. R. SMITH of Oregon. What's the difference in years?

Mr. P. MORRISON. In terms of years, we're talking about old-growth forests just beginning at 200 years in age and that's what we call—

Mr. R. SMITH of Oregon. And mature?

Mr. P. MORRISON. We have subdivided old growth into what we call early old growth, which is barely beginning to have old-growth characteristics.

Mr. R. SMITH of Oregon. And mature?

Mr. P. MORRISON. Mature forests are forests which are, 80 to 200 years in age.

Mr. R. SMITH of Oregon. OK.

Mr. P. MORRISON. Now, spotted owls do make some use of mature forests, but they—

Mr. R. SMITH of Oregon. Can they live in mature forests?

Mr. P. MORRISON. A lot of scientific studies have been done that show that 80 to 90 percent of their actual use in terms of land occupancy occurs in the old-growth forests.

Mr. R. SMITH of Oregon. Can they exist in mature timber?

Mr. P. MORRISON. Can they?

Mr. R. SMITH of Oregon. Yes.

Mr. P. MORRISON. I don't believe that a viable population can exist in solely mature timber.

Mr. R. SMITH of Oregon. That's interesting.

Mr. P. MORRISON. It can be supplemented by—

Mr. R. SMITH of Oregon. May I say to you—I don't know whether you follow the California situation, but they have second-growth forests in California, 100 years old, and they've got spotted owls living there and maturing and having babies. So, I suppose they're doing it in California.

Mr. P. MORRISON. Well, on some of those sites in California—I've been in stands in some of the California forests that you mention. They're very productive and in some of those sites, the trees, when they're 80 years old, are close to 200 feet tall and over 40 inches in diameter.

Mr. R. SMITH of Oregon. They're living there, you agree? Spotted owls are living there?

Mr. P. MORRISON. But those are in a very different type of ecosystem where you have—

Mr. R. SMITH of Oregon. Why in California rather than in Oregon?

Mr. P. MORRISON. Very highly productive forests.

Mr. R. SMITH of Oregon. Tell me, can spotted owls live in wilderness?

Mr. P. MORRISON. Certainly.

Mr. R. SMITH of Oregon. Can they live on private lands?

Mr. P. MORRISON. The main problem with wilderness areas, though, is if you look at the elevation distribution of wilderness areas, all of them are very high in elevation and spotted owls are limited in the elevation in which they can live.

Mr. R. SMITH of Oregon. Have we ever studied whether they could live in wilderness areas?

Mr. P. MORRISON. What was that?

Mr. R. SMITH of Oregon. Have we studied whether they could live in wilderness areas?

Mr. SISCO. Excuse me. I might be able to answer that.

Mr. R. SMITH of Oregon. I'm talking to Mr. Morrison. I'll get to you, Mr. Sisco. You'll have a chance.

Have we studied the issue of whether owls can live in wilderness?

Mr. P. MORRISON. The issue—you know, spotted owls can't tell where the wilderness boundaries are——

Mr. R. SMITH of Oregon. Well, that's a bad question to ask.

Mr. P. MORRISON. Whether they can ecologically survive in forest conditions that are found in wilderness areas——

Mr. R. SMITH of Oregon. I withdraw the question because we haven't. I know we haven't. We've studied the Forest Service about 10 percent of the forests under forest management.

Mr. P. MORRISON. That's not true. The Forest Service has inventoried for spotted owls in most of the wilderness areas—actually, I think all of the wilderness areas in the Pacific Northwest. They have been inventoried within wilderness areas. I've worked for the Forest Service and——

Mr. R. SMITH of Oregon. How many owls are in the wilderness area then?

Mr. P. MORRISON. I've actually found owls in wilderness areas myself.

Mr. R. SMITH of Oregon. Good. How many are there?

Mr. P. MORRISON. I can't tell you that, but the——

Mr. R. SMITH of Oregon. How many owls live on private lands?

Mr. P. MORRISON. Well, Larry Irwin could probably give you a better answer, but at the Old-Growth Conference last fall——

Mr. R. SMITH of Oregon. How many owls live on private lands?

Mr. P. MORRISON. I believe that very few owls have been found on private lands.

Mr. R. SMITH of Oregon. How about State lands?

Mr. P. MORRISON. I can't really answer that question.

Mr. R. SMITH of Oregon. I know.

Mr. P. MORRISON. Chuck Sisco could probably give you a better answer.

Mr. R. SMITH of Oregon. And you shouldn't be able to because we haven't studied the question of, can owls live on State lands or private lands. We don't know how many owls live in the wilderness areas. We are in here about the question of determining old growth and mature growth and I think that's a legitimate argument.

But before we take the step of putting Oregon out of work and Washington and northern California, we ought to determine how much wilderness area we have, how many owls live there, how many owls live on State lands, and how many owls live on private lands and for goodness sakes, let's get an idea of what we're doing to the employment factor in the Pacific Northwest before we take such stringent action as to either list the owl as endangered, which would put us out of business, or if you are sincere and you want to continue the economic opportunities for the Northwest, you would join us in a further study to determine exactly how many owls we have and where they live.

Mr. Sisco, you wanted to answer one of these questions. Please, go ahead.

Mr. SISCO. Which one do you want me to start with?

Mr. P. MORRISON. Before you say that, I just wanted to mention one thing——

Mr. R. SMITH of Oregon. Take the softball answer first and then move onto the other one.

Mr. P. MORRISON. I wanted to mention that the industry has done an intensive inventory in the last several years in southwestern Washington and it has looked at a lot more land than is contained in the Olympic National Forest or the national park, and they have only been able to find just a few owls on all of these industry lands.

Mr. R. SMITH of Oregon. Mr. Morrison, you understand it doesn't help us. We're looking at Washington, Oregon, Idaho, Montana, northern California, but in particular, we're looking at three States—northern California and region 6. You know that. So, one isolated study doesn't really get at it.

Mr. Sisco.

Mr. SISCO. I think it's too bad that Mr. Marlenee is not here because we definitely know there are not spotted owls in Montana and I'm sure he's real happy about that.

Mr. R. SMITH of Oregon. Well, he would be delighted.

Mr. SISCO. We could start a reintroduction program there, if he'd like.

Mr. R. SMITH of Oregon. Well, I am sure he would accept one. [Laughter.]

But you know, the point is that Mr. Marlenee's district is impacted as any other in the West in this country and I think you'll agree with me.

Mr. SISCO. You bet.

Mr. R. SMITH of Oregon. Mr. Marlenee is not exempt from this problem.

Mr. SISCO. You bet. He has the grizzly bear and the wolf.

Mr. R. SMITH of Oregon. Beyond the grizzly bear and the wolf, the spotted owl will impact Mr. Marlenee's district, as it will the rest of this country.

Mr. SISCO. Certainly.

Mr. R. SMITH of Oregon. Please go ahead.

Mr. SISCO. Well, there have been a number of studies on land that have been cut over, private lands primarily. One of the first studies, I think, was done back in 1978 by Dr. Postavit and his inventory showed that 9 out of the 10—90 percent of the places that he looked, he found owls in old growth and I think he only found two spots on private land. That was a random sample. He didn't go to one particular area or another one.

Dr. Larry Irwin has conducted some surveys down in southwestern Washington where he's looked for spotted owls. And I know that last year, they found—or the year before that—I believe they found eight separate individuals—or something like that, maybe three pairs—within second growth. A couple of those were on Simpson land, real high site ground like Peter was saying, where you have the structure there and you have owls present.

Now, the other unique thing though is that they're going to log those places. The timber is coming down for the export market right now as we're sitting here. This last year, they checked those sites and only two birds remain.

On the State lands in Oregon, the last information that I know of from the Oregon Department of Fish and Wildlife—ODF&W—has eight sites on State lands.

Mr. R. SMITH of Oregon. Do you know that's the Elliott State Forest and it burned down in 1930. It's got to be second-growth forest, I suppose, correct?

Mr. SISCO. I don't know exactly where those sites are, Congressman.

Mr. R. SMITH of Oregon. I know where they are.

Mr. SISCO. It could be in those places. I think the Achilles Heel of this whole argument is that the National Forest Management Act is saying that you need to pick a species to protect old growth because it's a unique ecosystem. But on the other hand, we have a critter that uses maybe a broad spectrum of habitat. All the research studies and the Fish and Wildlife Service report—I think it just came out—the status report is probably the best. Out of all the sites that they reviewed, they found over 90 percent of all the allocations in old growth.

Mr. R. SMITH of Oregon. Well, do you agree with me or not that we really haven't had an overall study of the owl and its habitat except for these isolated kinds of studies, that we have no idea between Oregon, Washington, and northern California, because we haven't studied these? That was my series of questions with Mr. Morrison.

Mr. SISCO. I think if you look at the amount of money that's been pumped into spotted owl research and inventory, this is the most studied species of any critter in North America, outside of the white-tailed deer. Maybe we need to put some more money into doing inventory.

Mr. R. SMITH of Oregon. Would you, as a man of judgment, risk the economies of three States if you didn't have the proper information to determine whether or not the owl can exist in these areas, other than we've studied? Would you, as a reasonable man, do that?

Mr. SISCO. No, I don't think so. If you look at the spotted owl's requirements and you look at the timber industry's requirements, the timber industry, over the last 20 years, has been on a steady decline because the timber is—we're simply running out of timber while we're exporting logs. So, it's not a question of what the spotted owl is going to cost—

Mr. R. SMITH of Oregon. We may be running out of timber; we're also increasing wilderness areas every year and increasing set asides and we're demanding more from the Forest Service, as you know, on the BLM-managed stream bank and protection of the multiple uses. So, we're strangling the industry and, at the same time, we're criticizing them for running out of timber. Somehow, we've got to reach—

Mr. SISCO. I think we do have to reach some common ground and, Congressman, I'm not some radical environmental tree hugger. I used to work for the Forest Service, I used to lay out

timber sales. I saw my boss get fired because he wouldn't go out and lay out timber sales on places where we couldn't regenerate trees. Basically, we were laying clear cuts out in places where you can't plant trees again. I quit.

I went to work in a mill. I got laid off because the mill got closed down. At the time, they told me it was Redwood National Park, but we were cutting Douglas-fir. All of a sudden, a light went on one day.

Mr. R. SMITH of Oregon. Well, I got mad at the Oregon Legislature and quit, too. I understand. [Laughter.]

Mr. SISCO. But I think the point to be made is that there's a transition going on and we need to——

Mr. R. SMITH of Oregon. My only point is this. If we're going to take this kind of action and the threat of some half of the allowable cut in region 6 in northern California, we'd better have the proper kind of information to do that, else we are sacrificing not only people, but also a resource.

Mr. SISCO. You bet. You have to have credible information.

Mr. P. MORRISON. Congressman Smith, I'd like to clarify one point that you made and that is, whether——

Mr. R. SMITH of Oregon. My time is up, Mr. Chairman.

Mr. VENTO. I think we've all been rather liberal with time, so I don't want to deny you the opportunity to be excessive since I was excessive. [Laughter.]

Mr. Morrison, you wanted to make a point?

Mr. P. MORRISON. Yes. The point is that—why are we running out of timber? I disagree that we're running out of timber because it's being set aside. The maps that I have here today show——

Mr. R. SMITH of Oregon. Well, you're not going to convince me, Mr. Morrison.

Mr. P. MORRISON. All of the area you see here in white has been cut and it's all been cut since about 1960. What remains here, these green patches, is what is left—the old-growth patches that are left. This is a 1982 status. It hasn't been updated to current status. If you update that to a current status, you'll see very little forest left.

What you see in orange here, these orange patches——

Mr. R. SMITH of Oregon. The white is private, I assume?

Mr. P. MORRISON. No, these are private land holdings here, these checkerboard patches. The orange patches are areas that were cut just between 1980 and 1982, just in a 2-year period.

Mr. R. SMITH of Oregon. Are there trees growing there now?

Mr. P. MORRISON. This is what this area looks like today and this is why the environmental community is concerned about this. This is an area where the timber industry has got its way and this is what it looks like today. This is not industry land. This is Forest Service land.

Forest Service employees refer to this area as the Moon or Wyoming because that's what it looks like. And they are cutting remaining areas there today. I was out there just 1 month ago and they are cutting areas right next to areas that they cut 20 years ago. There are no trees growing on those sites. There are no trees.

Mr. R. SMITH of Oregon. Do you have a forest management plan in Washington? I'm sure you do. Then you're like Oregon. You must replant. When you cut a tree, we plant one.

Mr. SISCO. The trees don't survive though on this particular area, Congressman. They planted some of these sites two and three times over and they're not surviving. It's just that the soil is not there anymore. It's gone down the river.

Mr. P. MORRISON. Congressman, you cannot——

Mr. R. SMITH of Oregon. In the State of Oregon, for instance, we have about 2 million acres of wilderness. The last release of wilderness, we were to release 3 million acres for public harvest. Your organization has been a part of those who have enjoined us, after you agreed to the release, you've enjoined us so that we can't harvest the 3 million.

In effect, we have 3 million acres of land that we can't use after it was released. So, don't tell me about strangling the timber supply because it is being strangled and you're helping it.

Mr. VENTO. I think that was more of a conclusion. I understand there's a difference of opinion.

Mr. SISCO. Not a difference of opinion, actually, I was going to agree.

Mr. VENTO. Well, maybe we can get to it in the questioning process here.

Mr. Jontz.

Mr. JONTZ. Thank you, Mr. Chairman.

Dr. Franklin, I want to take advantage of your presence here for a couple questions, if I might.

Is the consensus definition which you spoke of earlier, the definition which is being used in the Forest Service inventory that's now going forward?

Mr. FRANKLIN. I'm not sure whether it is or not. I believe it is. Tom, is it?

Mr. SPIES. More or less.

Mr. FRANKLIN. Yes, it is, to the degree it can be translated to the technology that they're using and what they're planning to use is remote sensing. This limits the number of characteristics that they can actually look at.

Mr. JONTZ. The Forest Service inventory is remote sensing?

Mr. FRANKLIN. The Forest Service—and the Chief will be presenting this to you on Thursday—is planning to do it, primarily through satellite imagery.

Mr. JONTZ. But to the extent that the technologies are compatible, the definition is the same?

Mr. FRANKLIN. Correct.

Mr. JONTZ. So, would it be your prediction that the figures that the Forest Service will ultimately come up with will be comparable to the figures that the Wilderness Society has since you're using a comparable definition?

Mr. FRANKLIN. I would expect them to converge.

Mr. JONTZ. You would expect them to converge.

Mr. Robinson, what do you think about this consensus definition? Are you in on this?

Mr. ROBINSON. Well, I think the bigger question is, what do you want to use the land for. It's an allocation question. No matter

what the definition is, it comes back to an allocation question. If perhaps you have salamander habitat in northern California to the normal eye would look like old growth, in fact, the trees are 130 years old, you may want to set that aside for some specific purpose of salamander habitat.

But you don't want to call it old growth. It's a definition problem. It goes back to an allocation problem. What's the goal for the land? What do you want to allocate to?

Mr. JONTZ. Well, does the industry have some scientists that can talk to Dr. Franklin and talk to the other scientists involved from a standpoint of reaching agreement on a definition? Do you have some people that can do that?

Mr. ROBINSON. I'm sure we can sit down and talk. I guess the question I come back to is, you still have to go and figure out how you're going to use it and that becomes an allocation question.

Mr. JONTZ. Well, we're making progress if we have the environmentalists and the Forest Service in some sort of a consensus definition and if we could include the industry scientists, that would be helpful.

Dr. Franklin, can you comment about the extent to which the consensus definition of old growth compares to a definition of spotted owl habitat? What can you tell us that would be helpful in terms of understanding the extent to which those two phrases or descriptions can be used synonymously and the extent to which that would be unwise to do that?

Mr. FRANKLIN. Let me, first of all, say that there are different kinds of old-growth forest and the one for which we have a real consensus is the middle to low elevation, west side forests in western Washington and western Oregon.

I think that's one of the problems we've got into with the whole issue of definition is that what occurs in eastern Washington and eastern Oregon is very different, what occurs at high elevation is very different, and basically the focus is on these prime timber lands and the old growth that characterizes them.

Given that as a starting point, how much overlap is there between old growth, as defined, and spotted owl habitat? The overlap is very substantial, but there are indications that the owl has a capability of using some kind of forests which would not fit a strict definition of old growth.

Congressman Smith brought this up. It's occurred several times. What happens, apparently, in some cases—I think the Elliott Forest may be another example—we find spotted owls in forests that are dominantly a younger forest, a mature forest, but they are invariably forests in which there is a major old-growth component.

In other words, these were areas where the old growth was destroyed by a catastrophe—wind, fire, even—well, those are the two classic events. Those kinds of catastrophes are typically extremely erratic in their behavior and they leave behind many green trees, many snags, many downed logs. So, when the new stand comes up, it isn't a young stand like a managed young stand. It is a natural young stand that has a strong structural carryover from the old-growth forest.

So, in effect, these are mixed stands. They are a mixture of the old and the new. Apparently, it appears, that under some circum-

stances, the spotted owl can use such a forest. I'd emphasize again, these are very different from our concept of a managed young stand.

Mr. JONTZ. And would I conclude correctly—would I be correct in concluding that the number of those instances, the number of acres involved, is very limited?

Mr. FRANKLIN. It's quite limited. These are anecdotes. You can count them on the fingers of one hand.

Mr. VENTO. If the gentleman would yield to me, the other point that staff was bringing out is the risk of using age only as a definition of old growth. Dr. Franklin, obviously you've taken up this specific question. As I said, there's a forest of issues beneath the spotted owl.

But the major one is the old growth issue because while we're all interested in the owl to some extent, I think the real rub here is what gets cut and what doesn't and what constitutes an old growth. But I'd like you to specifically address the issue of age. I think you actually talked about it and that's why I wanted to make sure we make the point that these forests' age differ, but they still would be considered old-growth forests.

Mr. FRANKLIN. Well, the age definition is pretty much as it was mentioned earlier. It appears that generally, on the kind of Douglas-fir sites that we're dealing with here, that old-growth conditions begin at about 200 years. Most of our old growth is on the order of 450 to 650 years of age. Such forests can persist with a Douglas-fir component to 1,000 to 1,200 years of age.

So, what you have is a very long timespan that we are calling old growth and during that time, it undergoes an evolution, a change and the spotted owl appears to really find this 400- to 500-year-old old-growth class the optimum kind of habitat, on average.

The mature forests typically are in the range of—begin about 80 years and go to about 200. Of course, you've got a gradual transition from one class to another. I would suggest that age is not a good criteria by itself, but in fact a matter, it is probably—and I think Tom Spies would agree with me on this—the best single criteria, that if a forest is dominantly 200 years old, it will be beginning its old-growth condition.

Does that answer the question?

Mr. VENTO. I think that's right. That was very helpful to me.

Mr. JONTZ, did you complete your questioning?

Mr. JONTZ. My time has expired.

Mr. VENTO. Mr. Herger.

Mr. P. MORRISON. I would just like to add that the one problem with age as the criteria is that the only way you can determine age is by counting the tree's rings and so, for an inventory purpose, it's very difficult to go around and bore every tree. And so you have to come up with some other criteria besides age to be able to define and inventory old growth and to manage it.

Mr. FRANKLIN. I might add, that's why the Forest Service gave up aging its stands. It was just totally impossible to do.

Mr. VENTO. Mr. Herger.

Mr. HERGER. Thank you, Mr. Chairman.

Mr. Franklin, it is indeed good to have you here. It's comforting to know that at least we have someone here today who is recog-

nized and appreciated by both the sides. So, I commend you for that.

Coming up with an inventory is obviously very, very important, and I just want to go over what I believe I heard you say earlier. You believe it will take between 18 months and 2 years to come up with a proper inventory of our old growth? Do you have a comment on that again?

Mr. FRANKLIN. Well, I think that's the general feeling about the minimum amount of time we can do it, although I think the Chief is proposing to actually have an inventory complete by the end of next year, by October 1990. He'll have to speak to that himself, of course, but I think the Forest Service intends to try, using satellite imagery and kind of a crash contract with a California firm, to put together an inventory, a first approximation.

This, I think, is to be followed up by a much more detailed kind of inventory which will take several more years beyond that to complete.

Mr. HERGER. With your experience, do you feel they could come up with a study that hopefully our different groups could tentatively agree on?

Mr. FRANKLIN. Yes, I think—

Mr. HERGER. We have so few things we seem to agree on out here today, I'm just curious about what you think.

Mr. FRANKLIN. I think the inventory that's planned, the more detailed one that's planned, I believe may take 2 to 3 years to complete under the current—I would have substantial confidence that everyone could agree on that.

I am a little concerned, personally, about the 1-year inventory based on the satellite imagery because I'm not convinced that the imagery is satisfactory. My chief concern there is that we might end up with an inventory that is controversial because not everybody is agreed that the technology is adequate.

So, I think personally, the idea of going ahead with a crash, 1-year program of this sort is fine, as long as everyone recognizes its potential limitations and continues with the more careful and detailed process using aerial photography and ground truthing that had previously been planned.

Mr. HERGER. So, if I understand you correctly, you feel we have a limited amount of credibility to this speeded-up, 1-year plan; however, the plan that we would have that would be more extensive that we would have out in 2 to 3 years, your feeling is that that would be a credible plan?

Mr. FRANKLIN. I think it would be credible.

Mr. HERGER. Mr. Sisco, would you agree with that?

Mr. SISCO. Yes, I think I would echo what Dr. Franklin's concerns are over using the Landsat data without ground truthing. There have been problems in the past with using satellite imagery without having the actual ground-truth data available and I think the test case could be done on the Olympic National Forest, as they're doing right now, using the timber inventory-plot data, the ecological, working with, and using that as a side board in its comparison between the two.

So, I think it's important that before we get into satellite imagery on a larger scale, that we have the ground truthing, and that's

going to take a little bit longer. In some of the forests, I might add, on the Willamette, the Siskiyou, they have an overmature study that's already been done called the Maum inventory and under those Maum inventories, the Forest Service has that ground truthing available. So, it's a little bit better.

Mr. P. MORRISON. I would like to add to that—

Mr. HERGER. Well, you've anticipated—you were the next one I was going to go to, Mr. Morrison.

Mr. P. MORRISON. Well, I would just like to add to that, on the Olympic National Forest mapping project, we are cooperating with the Washington Department of Wildlife. They have already used satellite imagery to map out old growth, mature and young stands. We're going to be, in the next several months, comparing our maps with the areas that they've mapped out using satellite imagery.

We've also obtained our own satellite imagery and are using it for the purpose of updating. I think that satellite imagery can be useful for some purposes in this process and it's the most efficient way to do some of the things.

But so far, it's been shown that there's a tendency with satellite imagery to not be able to distinguish between mature and old-growth forests. The spectral classes of the old growth and mature are very close together and it's very hard to break them apart. But there's some potential there and I think that we need to pursue everything that we possibly can.

I also want to make the point that the inventory and mapping can be done on a case-by-case basis and forest-by-forest and there's no need to delay for 3 years in protecting old growth for the time that we are working on an inventory. We can start in the process of actually deciding which areas to protect on a case-by-case basis.

Mr. HERGER. Just following up a little bit further, Mr. Morrison, it would appear to me, from what I have heard, that both Mr. Franklin and Mr. Sisco tend to agree that once we get the detail on the ground data in, in 2 to 3 years, they felt that we could come up with a plan that we could agree on.

Now, would you also agree with that? The reason I'm asking is, specifically, earlier in our discussion, I believe you mentioned, if I heard you correctly, that you weren't so sure we could agree on a plan at that time.

Mr. P. MORRISON. Well, what I was referring to was what the Forest Service has been billing as their snapshot inventory that Dr. Franklin said would be completed by 1990. Dr. Franklin also expressed some hesitation whether that would do an adequate job.

I'm sure that if Dr. Franklin feels that it's an adequate job, I'll probably feel it's an adequate job.

Mr. HERGER. I'm happy to hear that. I also represent a heavy timber area in northern California. There's this overwhelming feeling that comes up from the hinterland, from those that live out in these communities, that your side isn't always one that tends to be agreeable. The feeling is that you tend to want it all your way, and basically, that you just don't want anymore trees cut period. I would hope that wouldn't be the case. That isn't the case, is it?

Mr. P. MORRISON. No, that's not at all the case.

Mr. HERGER. And you do agree—your feeling is, once we come up with this study, 2 years or 3 years, in detail, that you feel confi-

dent—I don't want to put words in your mouth—but you feel confident that your group, the organization that you represent, should be able to agree on this just as—

Mr. P. MORRISON. Right. I think we'll be able to agree on that and I also think that in the interim, we will have maps of many of the national forests, and the Audubon Society will also have maps, and in conjunction with the Forest Service, we will be able to identify areas that can be harvested immediately, that can be put into the timber sale process in the interim period of time.

The critical factor here is that we identify the most ecologically important areas and defer any harvesting from those. At the same time, I would like to make the point that if we adopt some of the new forestry concepts which are not clear cutting, but what I would call variable density cutting, that we can harvest some of the young and mature forests that we do not consider old-growth forests.

We can do some cutting in those forests and actually improve their characteristics for spotted owls and we can end up having more spotted owl habitat or more potential spotted owl habitat 20 to 50 years from now than we do today and continue harvesting timber on the national forest lands.

What we need now is some creative thinking. We need to get out of the simplistic way we've been managing forests for 50 or some years. There are solutions out there and there's a considerable amount of agreement on some of these solutions and we need to pursue these.

I think the environmental community is not trying to shut down the timber industry. We're trying hard to find solutions that can maintain a viable industry and that can maintain a flow of timber in the short term while we're getting all these things resolved.

Mr. SISCO. Congressman Herger, I might be able to address that also. In the State of Washington, we have been involved, over the last 2 to 3 months, with the Western States Legislative Task Force, which is made up of different legislators, at looking at resolving this issue on the Olympic Peninsula because we feel if we can do it on the Olympic National Forest, we can do it just about anywhere.

As I mentioned earlier, we have identified about 60 to 70 million board feet on one district, which we thought we could put right back into the pipeline right away. And we've also identified other areas that we're not concerned about.

One of the big opportunities right now is commercial thinning on the Olympic National Forest and on other national forests, an opportunity to thin stands that are 30, 40, or 50 years old and maintain some habitat. As a matter of fact, there are some stands that are currently in spotted owl management areas that are only 60 to 70 years old that possibly could be thinned. So, there's volume out there and we are actively looking for it.

Mr. HERGER. I thank you. One last, very quick question to Mr. Morrison and Mr. Sisco both. Do both of you basically agree with the multiple use of our forests?

Mr. P. MORRISON. Yes, and I feel very strongly that this issue is not one that's going to be resolved by legislating that certain areas get protected and then other areas are intensively managed. I think that if we only get the 1.5 million acres of ancient forest that

we've identified, if we just get that protected and everything else gets cut like these photographs you've seen here, spotted owls will not survive and we will have lost the battle for biological diversity.

I think it's a more complex issue than just setting aside areas for intensive timber management and setting aside areas for old-growth preservation. It's going to require a complete, new change in forestry that incorporates a lot of the concepts that scientists like Jerry Franklin have been developing. We're doing a little bit lighter touch on the land, we're leaving some of the old-growth components behind, just like natural disturbances left some of the old-growth components behind. Snags, live trees, logs on the ground. It's possible to change our silvicultural practices so that we more mimic the natural forest disturbance regime.

By doing that, we can continue to cut trees on a lot of the national forest lands and maintain habitat, but it's going to take awhile to make these changes. The important thing is not to sacrifice the small remaining amount of ancient forest in the time that it takes to get geared up to make these changes.

Mr. VENTO. The time of the gentleman has expired.

Mr. Olin.

Mr. OLIN. Thank you, Mr. Chairman.

I've been quite quiet here for the time that I've been here today, but I want to ask a couple of questions.

The thing that is the most startling to me out of this discussion today, what I've heard, is it's not so much the issues of the old growth and the spotted owl, but the statements that have been made by quite a number of members of the panels and maybe some of these, that we're running out of timber in the Pacific Northwest.

And that even though there's a way of leveling that off at some lower level, it will definitely be a lower level and inevitably, the number of timbering jobs will go down. I would almost assume from what you've said that unless we change our practices somewhat, that lower level might continue to decline somewhat.

Is that generally the case, as you understand it? Does anyone on the panel want to comment on that?

Mr. SISCO. Congressman, if you would entertain maybe a couple of studies that have been done. First there was the Beutter Report that was done back in 1976 out of Oregon State University. The Beutter Report predicted exactly what's occurring right now, as far as reduction in timber supply.

Then a timber supply analysis and base line simulation came out of a forestry policy project that was done essentially for the States of Idaho, Oregon, Washington, and northern California. The same projections. I can refer you to the document itself, but essentially, it shows a large reduction in the timber supply coming off the private timber lands.

We're waiting for the next Beutter report, which is about 2 to 3 years late and we don't know why it hasn't been released yet, but it shows similar types of volumes. Then we had this Port of Port Angeles Report that was done, that shows a dramatic reduction, 65 to 75 percent. What's happening in the Northwest due to log exports, those timber lands—the private timber lands—are being cut to supply that log export market.

These projects, the one especially on the timber supply analysis, assumed that there would be about 2.3 billion board feet exported out of Oregon and Washington. Now, that was back in 1980 when they did the computer simulations. The projections then looked at how that decline would occur. And if you looked at the graph, on the bottom, that's a fairly steep drop-off. It goes from about 1.1 billion board feet down to about 0.8 billion board feet.

Now, the computer model assumed that the log exports would be about 2.3 billion board feet through the period that we're going through right now. Last year we exported almost 4.5 billion board feet out of the Northwest.

So, instead of this projection going like this, it's going even sharper. It's not only going to be sharper, but it's going to last longer because what we're exporting now are the small trees that are about as big as this pitcher, that were going to come on line in the year 2030, 2040, and 2050. So, not only are we eating into the timber industry's supply today, but also later on.

Mr. OLIN. In the private forests, is there an adequate degree of replanting going on or is that—

Mr. SISCO. On most timber lands, for example, for Weyerhaeuser and ITT/Ranier and the private timber corporations, they do a pretty good job. They're reforesting, but it takes a long time for these trees to mature.

Mr. OLIN. They're just cutting too much.

Mr. SISCO. It's just overcutting. They're not having a sustained yield.

Mr. OLIN. They're cutting really in excess of the regeneration?

Mr. SISCO. Right. I think in the Forest Service report that came out—and I don't have the exact site for that, but it was done about 1979—the Forest Service also looked at private timber land overcutting and projected somewhere on the order of 50- to 60-percent reduction into the year 2030.

Mr. OLIN. Now, the impression I got when I was out in Oregon last year was that this was the case and that the timber industry, in order to keep the volume up, was then looking at the national forests to make up the difference.

Mr. SISCO. Exactly.

Mr. OLIN. Which would imply that the same thing would then occur in the national forests. Has that started to occur in the national forests?

Mr. SISCO. Yes, it has, and it's been going on for quite some time.

What we have, Mr. Olin, is actually we have two industries in the Northwest. We have the major timber corporations like Weyerhaeuser, Ranier, Cavenham, Sir James Goldsmith, who export logs. They are the big timber owners. They own the timber lands. They own the timber supply.

Then you have the smallmill owners. The smaller mill owners are more directly tied to the Forest Service timber sales. In other words, they're dependent more on the Forest Service timber because they either don't have their own timber or they can't buy it from Weyerhaeuser or these other folks.

What's happening now is that the timber supply gets shorter with log exports and is that the private timber companies then begin to bid up on the Forest Service timber, as you probably heard

this morning. One of the sawmill owners, I believe, down in Oregon couldn't afford to bid against Weyerhaeuser and lost out on the bid because Weyerhaeuser has the capital to bid \$450 a 1,000 board feet or \$400 a 1,000 board feet. I don't know exactly what the sale went for. But the other smaller mill owners don't have that capital, so it's a problem.

Mr. OLIN. Let me ask you some more about the national forests. You say that we've reached the point now where the harvest is exceeding the regeneration. Our obligation in the national forests by law is to manage the forests to accomplish regeneration on a relatively balanced basis. But you're saying that the Forest Service is doing that job? Do any of you disagree with that statement?

Mr. SISCO. Not at all. I think on some lands, the Forest Service does a very good job of replanting. On some areas like you see over here on the photographs, where they planted on very steep soil or they've logged on very steep soils. Once they log and they lose the soil, we're going to be waiting for 20,000 years before the soil comes back.

Mr. OLIN. I would take it, on your western slopes where they get plenty of moisture, the regeneration is not a big problem. If they replant, you get regeneration.

Mr. SISCO. Actually it can be more of a problem on the eastern side because it's dryer and you get less moisture. So, some sites that have been logged maybe 30 or 40 years ago have not regenerated. So, there is a problem, both east and west.

On the west side, the biggest problem we have is the high rainfall and the problems that are caused from erosion and, of course, that impacts fisheries and everything else.

Mr. OLIN. To what extent is the situation that's described in these photographs does that exist in the national forests? Do you have any kind of a ballpark percentage figure?

Mr. SISCO. The photograph that was just removed?

Mr. OLIN. Yes, the photograph that he's taking away.

Mr. SISCO. The photograph that was just brought up to you is from the Soleduck Ranger District. That's on the Olympic National Forest and that was a cooperative yield unit that was set up by Congress back in 1944.

Mr. OLIN. What is the nature of the environment in that particular area?

Mr. SISCO. Well, I think, as Peter pointed out, the Forest Service considers it moonscape. Most of the spotted owl management areas that were set up on that district are no longer occupied. I think there are only two or three left that have owls in them. The fisheries have been impacted considerably.

Mr. OLIN. I am speaking though from the point of view of timber regeneration.

Mr. SISCO. There are a couple of areas on the Soleduck—I was up there just a couple of weeks ago—where they planted the trees 20 years ago or so and the trees grew just fine for awhile, but now they're beginning to turn yellow. In other words, there's a nutrient problem. What has happened is, when the Forest Service clear cuts on these steep slopes, they burn the slash, the logging debris afterwards.

It often times damages, in the long-term, the nutrient cycling on the site and so trees will grow fine for awhile and then they'll begin to die and there are literally thousands of acres of that type of thing going on on the Soleduck and also on the Shelton unit.

Mr. OLIN. You didn't get to the point of making some kind of an estimate of what percentage of the national forests in the areas you're talking about here might be suffering from that kind of poor regeneration?

Mr. SISCO. I wanted to point out—again, these photos were from the Shelton District. I may have said the Soleduck District. Excuse me. They are from the Shelton District on the Olympic National Forest.

Mr. P. MORRISON. I'd like to say that—

Mr. OLIN. You brought this up, Mr. Morrison. What percentage do you think this photograph represents?

Mr. DEFAZIO. If the gentleman would yield for just 1 second. You should know that the Shelton unit, since you're not from the Northwest, is a particularly unique unit in that Congress mandated departure from sustained yield on that unit back in 1936—someone help me out.

Mr. P. MORRISON. 1944.

Mr. DEFAZIO. So, this is the one—as far as I know, the one unit of the national forests where the Congress has mandated departure from sustained yield and what they're doing is, theoretically, the sustained yield is being accomplished between private and public lands. This is fairly unique. I'd just like you to know that.

Mr. SISCO. I think the point to be made on those sites is that the long-term site productivity has been greatly impaired and I think that was the question that you were asking, that we've lost the soils and rocks. So, that was the point we were trying to make.

Mr. OLIN. You're saying on a dry area like this, steep, that in that type of soil, if you clear cut and clear everything away, you run a lot of chance of the soil washing away?

Mr. SISCO. Exactly.

Mr. P. MORRISON. I would like to make the point that on this problem, we have focused on the Olympic National Forest, but this problem exists on all the national forests in the region. Regeneration problems are actually much worse on a lot of the Oregon forests than they are on the Washington forests.

The Shelton unit is a unique situation, but what's happened is, they've virtually stopped any logging on the Shelton unit because there aren't any trees left there to cut. Now they're hitting the other parts of the Olympic National Forest, like the Quinault District, very hard, and it's rapidly—even in a 9-month period—losing a tremendous amount of forest cover and we've documented that with aerial overflights and are mapping that out.

But the Olympic National Forest isn't unique. The situation occurs on all the national forests in the Pacific Northwest and some areas are worse than others. The Gifford Pinchot National Forest is so heavily fragmented that we've estimated no unfragmented old growth will exist in 2 to 3 years from now because of the intense amount of fragmentation that's occurring.

Mr. ROBINSON. Congressman, may I jump in?

Mr. OLIN. Yes, Mr. Robinson, go ahead.

Mr. ROBINSON. Thank you very much. I think a lot of this discussion seems to come back to the standards and guidelines under which management is conducted on the national forests. The forest planning process is the place where this gets discussed.

It seems ironic that these representatives here aren't following through on that process. We've got appeals and litigation; we've got all kinds of other things. Why don't we see the forest planning process being endorsed and strong efforts made to put that as the arena where all of this is decided?

Mr. VENTO. If the gentleman would yield. Isn't that the issue? We're in court right now. It's stopped in its tracks because of the owl and biodiversity and some other things. We've just got draft plans right now and that's where we're at. They're saying that if we proceed to cut the old growth, the issue will be moot and if we wait for that process to work for 4 or 5 years—

Mr. SISCO. Mr. Chairman, we would love to see the forest plans come out. I think one question I'd like to ask Mr. Robinson is why Mr. Crowell went to the Forest Service back in 1981—he was counsel for Louisiana Pacific Corp.—he went—

Mr. VENTO. He can't answer for Mr. Crowell. Perhaps he can answer for himself. Please proceed.

Mr. OLIN. I appreciate the chairman breaking in.

Excuse me. I missed the end of what you had to say, Mr. Robinson, if you could say it again.

Mr. ROBINSON. I'm sorry.

Mr. OLIN. You're not sure what you said?

Mr. ROBINSON. Yes, I lost the thought there.

Mr. OLIN. Well, I sort of lost it, too.

Mr. ROBINSON. I just really was saying that it seems as though this is a discussion of forest plan standards and guidelines and that the forest planning process is the arena.

Mr. OLIN. What I was trying to get at was, I think you basically all confirmed the fact that currently in the Northwest forests as a whole, that the level of harvesting exceeds the rate of regeneration, without regard to the size of trees we're talking about.

Mr. ROBINSON. I think that you would have to ask the Forest Service specifically whether that is the case. It is our understanding that the harvest does not exceed the growth.

Mr. OLIN. You think that the harvest does not exceed the growth?

Mr. ROBINSON. That's my understanding, that the Agency is in compliance with the regulations. You'll have to address that to the Chief on Thursday.

Mr. OLIN. Mr. Sisco, I think, said that he felt the harvest is exceeding the growth. I don't know what the facts are.

Mr. ROBINSON. Well, that's why I suggested—

Mr. OLIN. With regard to the timbering methods, it's obvious that if you use a clearcut method that cleans everything up and the earth washes away, you've got a big problem on replanting. Is that really much of a problem? It is certainly in some instances, but is the main situation on the Northwest forests such that if you plant trees, you expect them to grow?

Mr. ROBINSON. I think very much that that is the case. There's been a great amount of research that points out that clearcut har-

vesting does not substantially contribute to increased sedimentation. You have to build your roads very carefully. You have to pick the correct logging system. And that's all very much a part of what you have to do in order to do it correctly.

Mr. OLIN. I agree with that.

Mr. ROBINSON. I suppose the other thing is with the point of the burning issue, fire has been a part of that ecosystem for centuries. Those areas have been burning with a varying cycle—I can't speak exactly, but it's probably 500, 600, 700, or 800 years sometimes. The Siskiyou is the case.

Mr. OLIN. I understand that. I don't have any problems about clear cutting myself. I think that it generally works out quite well, providing you're in a location to get some moisture. That's the main thing.

But, Mr. Morrison, doesn't this say that your photographs are not typical of much of the forests we're talking about here and therefore, that is not much of the issue; is that correct?

Mr. P. MORRISON. The amount of area that has been cut on the Shelton District is not typical. But the problems of erosion and sediment production are typical of all the national forests and actually, in terms of regeneration, the area that we're discussing does get high rainfall.

It's an area which should be regenerating easily, but the problem is they've cut slopes that are well in excess, in many times, of 100 percent and they expect to be able to cut slopes like that and have trees regenerate. But those problems exist in all the national forests.

There are numerous scientific studies that have looked at the effect of clear cutting and road building on sediment production and on landslides and erosion and it's been well-documented that clear cutting and road building have major impacts in erosion.

I've done studies in the western Cascades and the Willamette National Forest that have looked at erosion of landslides and regeneration on those landslide scars.

You will have trees on those landslide scars that the Forest Service has tried to plant, that are 30 years old, but only 2 inches in diameter and about 3 feet high. That's not the kind of way we want to grow a forest.

Mr. OLIN. Mr. Chairman, I thank you for the time. I just want to make one other observation.

You made the comment earlier that it wasn't in our scope to talk about the excessive harvesting of private lands——

Mr. VENTO. No. Mr. Volkmer made that point, I didn't.

Mr. OLIN. I would hope that we would include that in our scope.

Mr. VENTO. No, I think we should.

Mr. OLIN. Because it would appear from the testimony to be a large part of the problem and that problem might be transferred to the national forests if we aren't careful in how we handle it.

Mr. VENTO. One of the other things that came up in the questioning here was the timber harvest cycle and I think Dr. Franklin ought to talk about that. If we have an 80-year cycle in terms of cut, that means that by definition you would have no old growth generally, advisedly using a definition that apparently there's agreement on.

Mr. FRANKLIN. Well, that would be true on the land base that is committed fundamentally to timber production or full-scale commodity production. As it's currently conceived, that's right. You would eliminate both the mature and the old-growth forests.

Mr. VENTO. It would be a lot different looking environment than—

Mr. FRANKLIN. A very different looking environment and that's really one of the reasons for thinking seriously about some different kinds of management strategies, because what we do basically is to take a very complex forest and to simplify it in terms of the species, in terms of the diversity of structure, et cetera.

Mr. VENTO. If you want to elaborate on these answers, you can do so in writing. We have other panels waiting and Mr. Craig has been very patient. He doesn't want to miss his opportunity, I'm certain.

Mr. Craig.

Mr. CRAIG. I didn't necessarily mind, Mr. Chairman. It's just that these are very, very important issues to all involved—and not just the West. Obviously, there are a good many people all over the country that are concerned about it.

Mr. Chairman, I find it somewhat ironic that, although we have a National Forest Management Act, we spent an awful lot of time trying to devise a better management scheme for the forests for some of the very reasons that Mr. Morrison talked about and some of the very dramatic pictures that he showed Mr. Olin. Those are past practices. And that's one of the reasons that drove the planning process, and to see if we couldn't do a better job.

Now we won't allow the planning process be implemented. It's held up in court because somebody said it wasn't done right or it isn't quite being done right or the process isn't working well, or there is something else involved that we fail to recognize. This is what is interesting to me. We have in fact got a process going forward that we're now denying. Mr. Chairman, we're denying in large part because we don't like the way it's coming out even though the process has wide public support.

Congress made what I thought was a wise decision some years ago. We've invested an awful lot of time and money, and many of us think that probably some of it is pretty darn good, and yet, we're not really allowing it to go forward. Now, the reason I say that, Mr. Chairman, is that I have in front of me something that I think is of very real interest to the committee, it's the Sixth Annual Western Public Interest Law Conference, Environmental Law Looking to the Future, Old Growths, Last Stand.

This was at the University of Oregon law school in March 1988 and I would at least like to ask that this portion of the transcript of that environmental law clinic be put into the record. I'd ask unanimous consent that it be done.

Mr. VENTO. It's just a couple of pages?

Mr. CRAIG. Well, I think to get the context of what we're saying, there probably will be 15 or 20 select pages.

Mr. VENTO. Well, without objection.

Mr. CRAIG. Thank you, Mr. Chairman.

Mr. VENTO. Hearing no objection, so ordered.

[The information follows:]

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SIXTH ANNUAL
WESTERN PUBLIC INTEREST LAW CONFERENCE
ENVIRONMENTAL LAW: LOOKING TO THE FUTURE

OLD-GROWTH'S LAST STAND?

(Partial Transcript of Proceedings)

Saturday, March 5, 1988

University of Oregon School of Law
12th and Kincaid
Eugene, Oregon

11 UNIDENTIFIED SPEAKER: Good morning. Good
12 morning. Sounds like we should get started; we're running
13 a little late.

14 This morning, you're here at the Ailbrook ^{old Growth}

15 Panel: We have three people speaking this morning. First,
16 we're going to have Andy Stahl, who is a resource analyst
17 at the Sierra Club Legal Defense Club in Seattle; then
18 we're going to have Ralph Bradley, who's a partner at
19 Bradley & Gordon here in Eugene. He's been recently
20 involved in the Breitenbush litigation. And then after
21 that, we'll have David Atkin from Sorenson & Atkin here in
22 Eugene, who's also teaching Public Land Law here at the law
23 school. Unfortunately, David Edelson is sick and will not
24 be able to attend this morning.

25 Each of these gentlemen will speak and then

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1 we'll have time for questions at the end. First one will
2 be Andy Stahl.

3 MR. STAHL: For those of you who
4 actually read your schedules, you'll see that I'm supposed
5 to be Vic Sher. Vic was scheduled for three panels and he
6 really wanted to go hear about toxic waste in federal
7 facilities so he asked me if I would substitute for him.

8 I'm going to talk about litigation strategies
9 to delay federal timber sales on Bureau of Land Management
10 and Forest Service land which log old-growth forests. I'm
11 not going to talk about litigation which has as a side
12 effect delaying this logging of old-growth forests. For
13 example, I won't discuss Clean Water Act cases that might
14 affect old-growth forests, nor will I discuss roadless area
15 protection cases in which old-growth forests are found in
16 those roadless areas, nor, for example, a variety of
17 sophisticated uses of the Native American Religious
18 Freedoms Act for protecting old-growth forests when those
19 sites happen to be important to Indian tribes.

20 My discussion is going to focus on the
21 litigation strategies employed since about 1980 by
22 attorneys in two-- well, in three organizations: The
23 National Wildlife Federation from 1980 to 1985, this
24 environmental law clinic here on campus during the period
25 1980 to the present; and the Legal Defense Fund office in

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1 Seattle from when we opened, January 1, 1987, to the
2 present.

3 Here's the problem facing a litigator
4 entrusted in delaying a federal old-growth timber sale:
5 There is simply no specific statutory protection for
6 old-growth forests. You can read the statutes high and low
7 that constrain Forest Service and BLM management and you
8 won't find the term "old-growth forest" used anywhere. To
9 date, old-growth forest has not been recognized by Congress
10 as a resource deserving of legal protection. We hope that
11 that changes and, in fact, the ultimate goal of litigation
12 is to delay the harvest of old-growth forests so as to give
13 Congress a chance to provide specific statutory protection
14 for those forests. That is a long-term goal.

15 Until legislation is adopted which protects
16 these forests, we need at least one surrogate, if you will,
17 that will provide protection for the forests. A surrogate
18 must have three qualities to be a good surrogate. First,
19 it must be unique to old-growth forests; secondly, it must
20 be measurable using scientific methods; and third, it must,
21 of course, enjoy some amount of statutory protection.

22 "Unique" is a necessary component because if
23 the resource can be adequately protected or produced in
24 some other kind of forest, a clear-cut or a second-growth
25 forest or a mature forest, then we can be sure that the

1 federal agencies will do so. In other words, they won't go
2 out of their way to protect old-growth forests if they can
3 produce that resource elsewhere.

4 For example, water. Though water enjoys
5 significant amounts of statutory protection and though its
6 quality is quite measurable, so it meets two of the
7 criteria, high-quality water can be produced in forests
8 other than old-growth, and federal agencies do so. They
9 will log old-growth forests and say, "We will protect water
10 quality, notwithstanding the loss of these old-growth
11 forests," and it's difficult to prove otherwise.

12 Though aesthetic experiences associated with
13 old-growth forests are unique, such as the Redwood National
14 Park, those experiences enjoy no substantive statutory
15 protection, saving particular sites as designated already
16 by Congress. In other words, there's no law that says you
17 can't destroy the aesthetic environment on BLM and Forest
18 Service lands. Also, aesthetics is difficult to quantify
19 and measure, making your job as a litigator more difficult
20 because it's hard to prove that the aesthetics of the area
21 will be damaged. Beauty is in the eye of the beholder,
22 after all.

23 The need for useful statutory protection is
24 obvious and an example of statutory protection that I don't
25 believe is useful as a so-called diversity section of the

1 National Forest Management Act. It's often cited as
2 precluding the Forest Service from logging old-growth
3 forests and it hasn't been tested in court, but I'm
4 skeptical of the strength of that argument. The statute
5 requires that the Forest Service provide diversity as
6 necessary to meet overall multiple use objectives. The
7 Ninth Circuit has offered one interpretation of what
8 multiple use objectives are. The Ninth Circuit has said
9 that they breathe discretion at every pore; not very
10 helpful language to a litigator.

11 Well, as the strategy for protecting
12 old-growth matured, it appeared that wildlife would offer
13 the most fruitful hunting grounds for a surrogate that
14 meets the three criteria. It's quite biologically sensible
15 to hypothesize that one or more species of wildlife would,
16 in fact, be unique to old-growth forests, because such
17 forests were for millenia the dominant forest type in the
18 Pacific Northwest. In addition, wildlife are measurable;
19 you can count them. And as we'll see, you can count them
20 in amusingly significant ways. And thanks to the work of
21 Walt Disney with Bambi and her friends-- I think he was
22 female-- wildlife enjoys substantial substantive statutory
23 protection.

24 Well, the northern spotted owl is the wildlife
25 species of choice to act as a surrogate for old-growth

1 protection, and I've often thought that thank goodness the
2 spotted owl evolved in the Northwest, for if it hadn't,
3 we'd have to genetically engineer it. It's a perfect
4 species for use as a surrogate. First of all, it is unique
5 to old-growth forests and there's no credible scientific
6 dispute on that fact. Second of all, it uses a lot of
7 old-growth. That's convenient because we can use it to
8 protect a lot of old-growth. And third, and this is more a
9 stroke of good fortune in one sense and in another sense,
10 an indication that environmental groups tend to wait too
11 long before they act, it appears that the spotted owl faces
12 an imminent risk of extinction. That's very important, for
13 if it didn't, federal agencies could argue that they could
14 continue to log old-growth and not hurt the spotted owl.
15 It's important that not only it face a risk of extinction
16 but that we haven't gone too far because then federal
17 agencies could argue: Why should we bother to protect
18 old-growth; it's too late already; the spotted owl is
19 doomed. In other words, we have to be right on the edge
20 and by good fortune, it appears that we are in this decade
21 right on that edge.

22 We know that to be so because of recent
23 advances in a field called Conservation Biology. In
24 contrast to today, when we can measure species and predict
25 their probability of extinction, a mere ten years ago, such-

1 matters were left to the subjective judgment of wildlife
2 biologists. And as you know, the subjective judgment of a
3 wildlife biologist that works for one of the federal
4 agencies that we're litigating would be offered substantial
5 deference by a court over the subjective judgment of our
6 experts. And so we would lose if all we were relying upon
7 was the professional judgment of experts.

8 Instead, Conservation Biology has offered us
9 empirical tools, numbers, mathematical models on which
10 basis we can predict the chance that a species will go
11 extinct. And those tools do two very important things:
12 First of all, they give our experts, who are responsible
13 scientists and therefore rather cautious, a beachhead on
14 which to base their opinions. That means that they'll be
15 more likely to express opinions and opinions which are
16 controversial will be more likely to be expressed.

17 Second of all, the same empirical tools give
18 us a means for impeaching the credibility of agency experts
19 who are relying solely on their subjective judgment. We
20 can say, how good is your subjective judgment when, look,
21 this rational, empirical approach predicts quite otherwise.
22 And that has caused most of the agency experts which we
23 might have to litigate against to either be silent or to
24 tacitly support our side.

25 Well, there are four statutes that are being

1 used to delay the harvest of old-growth forests. The first
2 and to date the most important of these has, of course,
3 been NEPA. We have used NEPA to compel the agencies to
4 admit that the spotted owl might go extinct. That
5 admission, then--

6 UNIDENTIFIED SPEAKER: For non-Oregon
7 lawyers and non-lawyers, could you please not use acronyms?

8 MR. STAHL: Yes. The National
9 Environmental Policy Act.

10 UNIDENTIFIED SPEAKER: Thank you.

11 MR. STAHL: I'm going to have to
12 remember what all these acronyms stand for.

13 Two administrative appeals filed, one in 1979
14 and one in 1980, challenge respectively the decisions of
15 the Bureau of Land Management and the Forest Service to
16 rely upon a subjective spotted owl management plan for
17 preservation of the owl. Those administrative appeals
18 focused solely on the failure to prepare an Environmental
19 Impact Statement. In other words, they were NEPA cases.
20 They were both unsuccessful but they did educate the
21 lawyers quite a bit.

22 And the second attempt at a similar
23 administrative appeal in 1984 was successful against the
24 Forest Service. That appeal was filed by the National
25 Wildlife Federation and three other organizations, I

1 believe, and as a result of that appeal, the Assistant
2 Secretary of Agriculture instructed the Forest Service to
3 prepare an EIS on the spotted owl. Very important, because
4 the-- at the same time, conservation biologists were coming
5 up with the mathematical models necessary to predict the
6 chance the owl would go extinct. And the Forest Service
7 hired some of those biologists and sure enough, the draft
8 spotted owl EIS predicts that the owl will go extinct
9 within the next hundred years. That's an important
10 admission.

11 Regarding the Bureau of Land Management and
12 NEPA efforts, conservation groups bluffed the BLM into
13 thinking that litigation would be filed, compelling the BLM
14 to make a decision. The decision was not to prepare an EIS
15 looking at the spotted owl, but the significant fact was
16 not what the decision was but that a decision was made
17 because, not untypically, environmental groups had been
18 somewhat lax in challenging earlier BLM decisions to log
19 old-growth forests, made three or four years before, so it
20 was very fortunate that the BLM revisited those decisions
21 and reiterated them, offering a handle on which to
22 litigate. And such litigation is pending; Portland Audubon
23 Society versus Odell. That case is in Federal District
24 Court in Oregon; motions to dismiss, motions for summary
25 judgment have been filed, and I think we can expect more

1 action very shortly.

2 So those were the NEPA efforts. They're
3 targeted towards getting the agencies to admit that the owl
4 might go extinct. That admission, then, is used to
5 litigate two addition-- well, actually, two additional
6 statutes. First, the Endangered Species Act, and second,
7 the National Forest Management Act Regulations.

8 About two dozen conservation groups, relying
9 partly on the admissions in the Forest Service draft
10 spotted owl EIS, filed a petition with the Fish & Wildlife
11 Service to have the owl listed as a threatened and
12 endangered species. That petition was denied, not
13 surprisingly, and a 60-day notice of intent to sue has been
14 filed. That 60 days expires around April 22nd and
15 litigation will be filed. So what's being done is taking
16 the admissions of one federal agency and using them against
17 another.

18 The National Forest Management Act Regulations
19 will likely be litigated when the Forest Service spotted
20 owl EIS goes final, and that's expected to happen in the
21 spring sometime. There the challenge will be that the
22 Forest Service has failed to provide a viable population of
23 spotted owls and that's going to be-- that litigation will
24 be rather difficult and will depend largely upon the
25 success in the BLM case and in the Fish & Wildlife Service

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1 Endangered Species Act case. If we lose those two, we
2 might not even have to litigate against the Forest Service.
3 We'll have set such a bad precedent that it might not be
4 worth it.

5 Finally, a forth statute is going to be sort
6 of the wild card in spotted owl protection, and that's the
7 Migratory Bird Treaty Act. That act does not-- that act
8 precludes the changing in any manner whatsoever of a bird
9 listed by the Secretary of Interior pursuant to the
10 statute. The statute codifies treaties signed between the
11 United States and Canada and Mexico and Japan, and the
12 spotted owl is, in fact, listed as a species protected
13 under that act. To date, the federal agencies have
14 interpreted that statute as simply a criminal statute that
15 imposes penalties against people who kill a bird who stood
16 under the statute. But it appears that we will assert that
17 habitat destruction by a federal agency which knowingly
18 will result in the death of spotted owls is, in fact,
19 illegal. And here again NEPA has been very useful because
20 the Bureau of Land Management in the Environmental Impact
21 Statements prepared in the early 1980's did, in fact, admit
22 that spotted owl-- that old-growth logging would kill
23 spotted owls. They admitted that at a time when they
24 didn't know that the the Migratory Bird Treaty Act might
25 preclude them from killing owls. So we will assert that

1 that logging is illegal.

2 The Migratory Bird Treaty Act is also
3 important because it's the only statute to date that could
4 constrain the activities of private landowners and other
5 agencies. The act speaks to the actions of any individual
6 and so a company that holds old-growth forest in which
7 spotted owls or spotted owl nests are found that wants to
8 log those forests could be subject to criminal penalties if
9 logging leads to the death of spotted owls, and it can be
10 proven ahead of time, hopefully, that it does so. . . .

UNIDENTIFIED SPEAKER: My question was

3 for Jim or any of you guys.

4 While your ideas about doing everything and
5 filing a mass appeal that could hope to slow this stuff
6 down is fascinating, isn't there a great deal of a problem
7 with the press and the perception of other parts of the
8 country or even in this part of the country with certain
9 circles, hopefully outside of this room after your nice
10 talks, with the fact that you're purely being
11 obstructionists and that you're doing this as nothing more
12 than an effort to shoot the legs out from underneath the
13 timber industry that so many people of this state survive
14 on? And seems to me that's a difficulty that needs to be
15 faced there with public perceptions and as good as the idea
16 is, seems to me it needs to be a lot of press to make
17 people understand why the appeals were filed in fashion
18 they were.

19 MR. STAHL: I agree totally with that.
20 For example, with the spotted owl, there was two years
21 invested in doing nothing but press, public relations and
22 media work before any litigation was failed; that's
23 critically important.

24 The other important thing is that you never
25 emphasize your legal theories to the press; you emphasize
what you're saving. The legal theory never appears as
attractive to the public than the fact that you're saving
big, old trees.

Mr. CRAIG. The reason I want this entered into the record and part of the debate of this issue is because I tend to agree with my colleague from Idaho, Mr. English, when he talks about this really being an allocation issue and a decision that has to be made on lands we will allow multiple-use practice to go forward, which includes logging, and those which we will disallow.

Now, at one point in here, Mr. Andy Stahl, who is the head of the Sierra Club's legal defense fund, when and if the question has been asked, why the spotted owl? Maybe his answer would have been the spotted owl was selected because it was cute and cuddly or it might have been that they invested a good deal of time and money.

I would like to read for the record his quote. "We talked about old growth stands and that's the issue, and how do you raise the visibility of the question? In other words, how do you get the Congress to react to old growth?" That's really the issue, Mr. Chairman. How do you get the Congress of the United States and the public of this country to recognize old growth timber? In other words, they want to stop cutting on it because it is unique, it's primeval, it's old, it's ancient, it's whatever it is, and there is little of it left.

I would suggest to you that the issue is not the spotted owl. The vehicle to get to the decision on old-growth timber is the spotted owl. Mr. Stahl said I would agree totally—now I'm taking him out of context a little bit and it would not be fair to say that it was a direct quote.

For example, with the spotted owl, there are 2 years invested in doing nothing but press public relations, and media work before any litigation. Well, I think the point being the homework has been done, this is the strategy that was laid out 1 year ago.

We're here today partly because of a concerted effort of filing massive lawsuits, for the purpose of stopping an action and force us to make a decision, and to deny a process to go forward which this Congress suggested some time ago ought to go forward, Mr. Chairman, for the purpose of the very allocation that I think is critical on our public lands.

There are some instances where we can't have our cake and eat it too. I accept that. And I guess my frustration is that we're fooling ourselves if we say there are some negotiables, because there are really some nonnegotiables here and we ought to recognize that.

I think that many in the preservationist community would say that the continued cutting of old growth—spotted owl or no spotted owl—is a nonnegotiable. Mr. Morrison is nodding his head in agreement. That's what this document says, Mr. Chairman. Let's don't get faked out by the spotted owl. We're not after the preservation of a bird. We're after the preservation of old growth, ancient, primeval forests on the western slopes of the Cascades where there is a uniqueness.

That's the issue. So we in Congress are going to be asked to choose between old growth and an industry, a job base, an economy, and that's tough for a lot of us. It's politically a very impossible place to be and what we are failing to do, Mr. Chairman, in

making proper decisions, we're trading it off to the litigation process and that's unfair for all parties involved.

I'm one politician that's willing to stand up and be counted on this issue and I think it's important that all of us are. But let's not get fooled. It is an allocation question. It's a question of whether we're going to cut any more old growth in the Pacific Northwest. It is not the spotted owl. The spotted owl is a vehicle, well-designed, well-publicized, for that purpose to communicate ultimately the question that's before us today.

It just so happens that there's a law available to serve as the vehicle to carry forth the spotted owl and that's the Endangered Species Act. What we really ought to be talking about is land allocation and that which we're going to allow to retain itself as old growth and that that we're going to move right on into for multiple-use purposes, recognizing very well that there are trade-offs, as always.

But most importantly, I am very disappointed when I see a variety of people who back away from a process that's been ongoing for some time and that's the planning process that isn't perfect, but it's a lot closer to where we need to get.

I have no questions of these gentlemen, but that's how I feel about this, Mr. Chairman, and I feel very strongly that somehow, we might be getting snookered, in that we are being fed information when in fact we ought not get clouded or at least have our vision clouded on this. There really are some fundamental issues here. Tough political choice.

Compromise? No. In many instances and in many cases, there are no compromises and we in the public arena will have to make decisions and say, this will go forward and in these areas, no, they will be preserved because they are unique and they deserve to be there for generations to come.

Now, that's going to make a lot of people unhappy and a lot of people happy on both sides of the issue. That's part of our job. If we prolong it, we can study the hell out of it. Now, we already have a lot of resource information out there. If we go forward, we're just going to provide a very false base for an awful lot of people and I think that's terribly unfair.

I think in this session of Congress we ought to have the wisdom to pony-up some reasonable legislation, make some tough decisions, and get on with the business.

Thank you, Mr. Chairman.

Mr. ROBINSON. Mr. Chairman, I'd like to make a comment if it's possible.

Mr. VENTO. Go ahead, Mr. Robinson.

Mr. ROBINSON. In dealing with the allocation question, I think that there might be a way through all of this in terms of through the planning process, but I think it would require that allocations on all sides be opened up. In other words, we would have to address some of the wilderness allocations as they're set up and also address allocations for the old growth.

Mr. VENTO. That's your view.

Mr. ROBINSON. If you're going to talk allocations, then everything gets laid on the table wide open.

Mr. VENTO. Mr. DeFazio has been waiting patiently. I know we have another panel. We put him at quite a disadvantage because he has constituents that want to be on their way and want to be heard from in the next panel, so I regret that, Peter, but go ahead.

Mr. DEFazio. Well, I'll try and be more brief than recent events here and I have my staff working on trying to get them an alternate flight. So, I am trying to accommodate them.

I just want to pursue Mr. Sisco and some other folks a little bit here because I see something going on in Washington that doesn't seem to be going on in the State of Oregon.

You mentioned the Soleduck unit, 65 million board feet that you identified. Now tell me, are you talking about a one-shot, one-time, 65 million board feet choosing over the whole unit? Therefore, you're saying, that's it. Are you talking about—is that just sort of an interim? Is that sustained? And what were the three categories you said that was coming out of it? It was fragmented, and there were a couple of other things. So, could you address that briefly?

Mr. Sisco. Certainly. First of all, let me give you a little background on how this started. The Western States Legislative Task Force asked conservation groups and some of the timber industry folks to sit down at a table and with the Forest Service and Fish and Wildlife Service, to try and come to some conclusions as to whether we could find some short-term volume.

At the time, we were only looking at 20 to 30 million board feet to try and solve the short term within the next couple of months for a few select mills. What we did was to identify volume that would not be covered under the current injunction. In other words, we looked at timber sales that were either salvage sales or very small clearcut units. I looked at one sale, for example, that had blown down in the interim.

Mr. DEFazio. Is there accessible or previously planned sales, though? You're not just like taking an area of the forest and saying, you should harvest here and the Forest Service says, well, we can't go there. We haven't planned it yet and don't have a road?

Mr. Sisco. No, these were areas that were already in the pipeline, either the salvage pipeline or they're very easily accessible. The roads were already in. That was a first cut that we looked at.

The second cut was to look at timber sales in areas that would have very little consternation between either the Fish and Wildlife Service, who is also evaluating spotted owl habitat, or for the industry or for the conservation groups that were plaintiffs. That's where the big chunk of timber came out to about 40 million board feet total—40 to 45 million board feet.

Those were in areas, as I pointed out earlier on the map, where a particular SOMA had been moved to the north into an area where there were no owls, a higher elevation. There were three timber sales there we identified, two of which were in the fiscal year 1990 program already, one that was in the fiscal year 1991 program.

Since then, we've also identified some other sales. I believe a similar process is going on in the Willamette.

Mr. DEFazio. Well, the SOMA's that were identified by the Forest Service, which were these moving SOMA's, do they have the

characteristics that would normally fall under the judge's injunction?

What I'm seeing on the Willamette is, I've had one group come in and they say, not a stick because every single one of these sales that's projected over the next 2 years meets the minimal criteria set by the judge and it sounds to me like you're saying, the minimal criteria set by the judge is not the point. The point is something else?

Mr. Sisco. Well, let me make a clarification. The Forest Service is the one that supplied the judge with the list of timber sales. Now, in some instances, the sales that come in under the injunction were not suitable owl habitat and we've already released those. I believe there were three or four on the Olympic.

The second point is that the sales that we're looking at that are in the SOMA's are currently not enjoined and we would have to sit down both with the Forest Service attorneys and the plaintiff attorneys and say, we're not concerned about these areas and then go to the judge and say, release them.

Mr. DEFazio. But they are potential owl habitat? I mean, they have the characteristics?

So they could be put under the injunction?

Mr. Sisco. Well, that's what I'm saying. We would go to the judge and say, these areas, we're not concerned about because they're at high elevation, they don't have owls in them. The particular area that we're talking about is fairly marginal—true fir, silver fir habitat. I don't know if there have ever been owls there before, but I would kind of doubt it. It's not real good habitat.

Mr. DEFazio. And I haven't seen that on the Willamette yet, but I know some people are working on that.

So, the objective—it seems to me what I'm hearing today, which is a little different than I've been hearing, is that we're going—if we establish—if Mr. Robinson could sit down with his group and someone else, Dr. Franklin and some of the agencies and some of the environmental groups, and you could agree upon a definition that—just a definition of what is significant old growth given the characteristics Dr. Franklin has established, that we could agree on ultimately, after this 2- or 3-year period, how many acres fall into that category.

Now, the question then becomes, what do you do with those. How much of that would you set aside? How much of that does that—what kind of a withdrawal does that mean? But that means that there's a fairly large, under my understanding of the MOM inventory on the Willamette and elsewhere and having seen the old-growth inventory drop from 600 down to 300 something or 400 in just one cut on the MOM, is to say there's another 200 or 300—almost half is gone. So, half of it falls outside this really ecologically intact, Dr. Franklin-type definition on the Willamette.

I guess what I'm looking at is the interim period. Where are we going to find timber to harvest? It sounds like that's where the Solveduck timber is coming from to some extent, and there might be timber, significant timber on other units, including in the Willamette, since we just had a big drop-off in terms of what we consider to be the ecologically significant old growth, which is what we're really arguing about here, rather than the mature—I'm not saying

there's no value in the mature over mature, younger old growth, but I'm saying that that's where you're looking to get the timber.

Mr. SISCO. Right. And that doesn't include the commercial thinning. There's commercial thinning volume on top of that which—

Mr. DEFazio. No, I'm very familiar—I asked the questions of the Forest Service about commercial thinning. I am disappointed in the Forest Service. They'll have their day on Thursday and I'll be hitting them with a hammer because I think they can do more.

So, is there anyone who has a real problem with the way I just sketched it out? I mean, you're not necessarily agreeing to what Dr. Franklin's definition is or anything like that. I mean, that would be a way of proceeding, to determine what exactly is the nub of the issue over which we're arguing. Would you, Mr. Robinson? Can you agree to that?

Mr. ROBINSON. I think I would see it that given the definition and in fact the MOM inventories on the Willamette are quite useful in the fact that they go after stand characteristics, which can take care of a number of different definitions, depending on what you choose in the GIS system.

I think that we would have to have a high quality inventory, which was designed for the obtaining of old-growth characteristics on a local basis. In other words, quality statistical work, quality field work, quality data compilation. If we could see all of that laid out—and I would expect, given what we've talked here—the 2- to 3-year period would probably be adequate to do that.

Mr. DEFazio. Could you agree then that we could program our harvest in the interim without going into the areas that we suspect are going to be the ones identified by Dr. Franklin as the large, intact blocks?

Mr. ROBINSON. I certainly think that there's an opportunity to go there. I'm painfully fearful that the preservationist community will continue in the pattern that they've already been on and that is the fact that every time we have a mature timber sale—not an old growth, but we have mature timber, we are seeing appeals in a steady fashion on those sales.

We've not solved the interim problem. Until we get the odd cousin out there to stop doing that—

Mr. DEFazio. I understand, and I think some of the earlier witnesses from both sides identified that problem and also agreed to some willingness to work on that in an interim period. So, we're just trying to narrow down our options on this side and I think I see we're moving in a useful direction.

Dr. Franklin, since I've had conversations with you in the past and you gave so much time and came to my forestry 2010 when I was sort of anticipating this problem before the injunctions and I've been impressed with you, is there anything—since you don't have an opportunity, I would yield you a couple of minutes for the remainder of my time—is there anything in your reflection upon what you've heard or what you expect will go after you today that you'd like to state for the record now?

Mr. FRANKLIN. Yes, there is. Thank you, Congressman. I really appreciate the opportunity.

I am a forester. I've got a bachelor's and a master's in forestry. I teach forestry. And it's unfortunate that foresters have done a very

poor job of demonstrating that we can, in fact, manage for commodities and ecological values.

I think one of the ways that you're going to bring the preservation or conservation community along—whatever you want to call them—is to in fact begin to practice a forestry which does in fact protect ecological values at the same time that you're harvesting those commodities over there.

We now really are beginning to develop the kind of knowledge base we need to do that kind of thing. If it's agreeable to the chairman, I want to enter into the record an article that I wrote for the Eugene Register-Guard, based in fact on the comments that I made at your conference, Congressman.

I originally entitled it, "A Kinder and Gentler Forestry," although they did not use that title. But the point is, we find ourselves at a place now where we are beginning to develop enough understanding about what it really takes to preserve ecological diversity, that we could really begin to practice multiple use forestry.

Multiple-use forestry is not just going out there and cutting down all the trees, cleaning up the slash, and planting some new trees. That's not what it's about. It has to do with perpetuating some of the structural diversity that was characteristic of stands, and it has to do with thinking about the patterns, the sizes of patches that you put out on the landscapes, and the nature of the edges and the transitions.

And the knowledge is there now to begin planning, studying, begin practicing these kinds of things, and it's truly unfortunate for us that we were not doing this, as foresters, 20, 30, 40 years ago because right now, people like my colleagues in the conservation community fairly ask, well, this all sounds real good, how do we know it will work.

Well, we don't, but theoretically, conceptually, and even in the case of some pilot tests, it looks like we can do things, things like, for example, creating stands that perhaps many old-growth species can live in simply by retaining some of the large green trees at the time of cutting instead of, in fact, cutting down all the green trees.

So, some of that kind of thing is outlined in this op-ed that I did for the Register-Guard and I would just appeal to you to make this one of the major components of your agenda as you assess this issue of old growth and spotted owls and management of our commodity timber lands.

From the standpoint of ecological values, we have not been doing a good job. We have the opportunity to do a much better job and, at the same time, to be able to harvest commodities. Now, it may not be the most intensive, most efficient management from the standpoint of wood fiber, but it can provide us the opportunity to have both, to share that pie on some of that landscape. I think that's a very important part of this agenda.

Thank you for your time, Mr. Chairman.

Mr. VENTO. I've read about three-quarters of the op-ed piece and it's very good, Dr. Franklin. Without objection, it will be made part of the record.

Hearing no objection, so ordered. I commend you for it.

[The information follows:]

COMMENTARY

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Eugene, Ore., Sunday, June 18, 1989

'New forestry' better way to cut up the pie

Alternative logging methods offer compromise

dividing up the pie — deciding how many acres should be devoted to continuous production and how many to preservation.

Presumably commodity lands would be managed "sustainably" for high yields of timber. The remaining acres would be managed for wildlife and recreation. The idea is to have a "new forestry" that would provide a compromise between the two extremes.

There are several advantages to this approach. First, it would allow for the preservation of old-growth forests and other valuable habitats. Second, it would provide a steady stream of timber for commercial use. Third, it would create jobs in the forestry sector.

However, there are also some challenges. One is the need for accurate data on forest resources. Another is the need for a strong regulatory framework to ensure that the "new forestry" is implemented properly.

Despite these challenges, the "new forestry" approach offers a promising way to balance the needs of the timber industry and the environment.

regional" her forests following catastrophe, such as wildfire, windstorm and volcanic eruption. Such actions ensure typically that the forest is managed for the benefit of the region, not just the local area.

The young forest movement has been a major force in the development of "new forestry" practices. It has emphasized the need for a more holistic approach to forest management, one that takes into account the needs of the entire ecosystem, not just the timber.

Such knowledge can be the basis for a new forestry that is more sustainable and more equitable. It can help us to find a way to manage our forests that is both profitable and responsible.

Such a "new forestry" uses ecological principles to create managed forests that are more resilient to natural disturbances. It also provides for the production of timber and other forest products, while maintaining the ecological integrity of the forest.

There is no doubt that the "new forestry" approach is a better way to cut up the pie. It offers a more sustainable and more equitable way to manage our forests, one that balances the needs of the timber industry and the environment.

There is FORESTRY, Page 4B

and 20 years we have just begun to understand the importance of the forest. The forest is not just a source of timber, it is a source of life.

The forest is a complex system, one that has evolved over millions of years. It is a system that is highly resilient, one that can withstand natural disturbances and human impacts.

However, the forest is also a system that is highly vulnerable. It is vulnerable to natural disturbances such as wildfire, windstorm and volcanic eruption. It is also vulnerable to human impacts such as logging, land clearing and pollution.

It is our responsibility to protect the forest, to ensure that it remains a source of life for generations to come.

Landscape ecology reveals relationships between forest stands and management practices. It shows us how the forest is a dynamic system, one that is constantly changing and evolving.

Understanding these relationships is key to developing sustainable forest management practices. It allows us to make informed decisions about how to manage the forest, decisions that take into account the needs of the entire ecosystem.

By understanding the forest as a complex system, we can develop a more holistic approach to forest management, one that is more sustainable and more equitable.

Land use patterns in the Pacific Northwest have been shaped by a combination of natural and human factors. The forest has been a central part of the region's economy and culture for centuries.

However, the forest has also been a source of conflict. There have been many debates about how to manage the forest, debates that have often been framed in terms of "timber vs. wildlife" or "development vs. preservation."

It is time to move beyond these narrow perspectives and to develop a more holistic approach to forest management. We need to recognize the forest as a complex system, one that is highly resilient and highly vulnerable.

As forest attributes in the past have been lost, we must find ways to restore them. This is not just a matter of ecology, it is a matter of justice. The forest is a resource that belongs to everyone, and we have a responsibility to protect it for the future.

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By understanding the forest as a complex system, we can develop a more holistic approach to forest management, one that is more sustainable and more equitable.

FORESTRY

Continued from Page 1B

Finally, logging a sound ecological approach to forest management. It allows us to manage the forest in a way that is both profitable and responsible.

There are many different types of logging, each with its own advantages and disadvantages. The key is to choose the right type of logging for the right forest, and to manage the forest in a way that is sustainable and equitable.

By understanding the forest as a complex system, we can develop a more holistic approach to forest management, one that is more sustainable and more equitable.

There is even evidence that private landowners have higher rates of forest management than public landowners. This is likely due to the fact that private landowners have a more direct financial incentive to manage their forests sustainably.

However, there are also many challenges to private forest management. One is the need for accurate data on forest resources. Another is the need for a strong regulatory framework to ensure that private forest management is implemented properly.

Despite these challenges, private forest management offers a promising way to balance the needs of the timber industry and the environment.

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There is FORESTRY, Page 4B

Mr. VENTO. That completes this panel. I think it was a good suggestion and I credit my cochair here, Mr. Volkmer, to invite Dr. Franklin to join this panel. It was good that you could, Doctor, and I commend you for your work. We'll be hearing from your colleague, Dr. Spies, on Thursday, when we hear from the Forest Service for whom you work on a half-time basis.

They wanted to use you and your ideas on Thursday to present to us a positive orientation. I'm very encouraged by the work of the various conservation groups. Mr. Sisco, I was very impressed with your testimony and that of Mr. Morrison as well.

Mr. Robinson and Mr. English, we didn't get you to participate like we all would have liked to. My excuse is, you're hiding behind the recorder here. But I would say this:

I hear some discussion on the conservationist's side, but I don't hear the forest products industry getting involved in it. I can understand your reticence to do so based on the type of activity, but I think that the price of not doing so will be that you may be dealing yourself out of a solution that we might deal with legislatively.

I don't think that this is the type of issue where someone is going to hit a grand slam homerun. I think that the litigation has obviously tied things up in a way that nobody would design. In my conversations with both sides in this, I don't think anyone sees that as an ultimate solution because I think it ties up everything, as opposed to being surgical in nature.

Public policy, whether it's through us or through the Forest Service, is going to have to be more selective in how it deals with that particular issue.

I would hope that notwithstanding the fact that there's a slow burn or a fast burn going on emotionally in the Pacific Northwest, I would hope that those that are in policy positions in the forest products industry, and others, would continue to work toward a policy that would be balanced. I think there are some problems with the appropriators here and that public policy. That policy is headed for a confrontation in the near future.

We hope that you will work with this group because otherwise, I fear that we're going to get a poor solution that does not fit as well as it could. Economic displacement will be more likely without your participation than with it. So, I hope that we'll get that message across to you as I excuse this particular panel.

I couldn't help but be struck, Dr. Franklin, by the whole temperate rain forest environment where decomposition is so much slower. As we look at it, it looks like there's so much organic material there. When you take it all away, it takes a long time to reproduce and to put it back. You don't do that very easily.

I felt, as I was reading your op-ed article, that maybe you're saying that the Forest Service has to become more like Weyerhaeuser in terms of some of the areas that we intensively manage and recognize that you can't as intensively manage some of the other areas.

Mr. FRANKLIN. No, I wouldn't propose that any of the Forest Service landscape look like Weyerhaeuser's. [Laughter.]

Mr. VENTO. Good. Thank you very much, gentlemen.

The next panel is Mr. Jeffrey T. Olson, forest economist to the Wilderness Society in Washington; Jerry Rust, who's a county com-

missioner from Lane County, Oregon; Sue Kupillas, commissioner, Jackson County, Oregon; and Alberto Goetzl, chief economist, National Forest Products Association, Washington, D.C.

Jeffrey, welcome. Please proceed.

**STATEMENT OF JEFFREY T. OLSON, FOREST ECONOMIST,
WILDERNESS SOCIETY**

Mr. OLSON. Thank you, Mr. Chairman.

I'm pleased to be here representing the Wilderness Society and its 300,000 members nationwide. I'm very happy to be discussing the important issue of management of old-growth forests in the Pacific Northwest.

These magnificent forests are part of our rich, natural heritage. Unfortunately, as the last panel so aptly demonstrated, these forests are badly fragmented and they are at risk. To lose what remains of this magnificent heritage would make us all the poorer.

To summarize my written testimony, the Wilderness Society is concerned both for the ancient forests, but also for the economic health of the Pacific Northwest. Timber, an important part of the region's economy, is clearly undergoing a transition. It is a fundamental transition that is moving from exploitation of the last naturally occurring forest stands to managed stands of younger, second-growth timber.

As that transition has progressed, it has moved from the private lands to the public lands. Today, the public lands support some 48 percent of the region's total cut, which is up from 30 percent in the 1950's.

The real issue for the future of the region is not the timber economy, but rather, it is the future of forests in the Pacific Northwest. As background, the timber industry today contributes far less to the region's economic base than it has in the past.

Today, for example, just 3 percent of the region's total employment is in the timber and wood products industry, specifically logging, lumber, and solid wood products. That compares to 6 percent just 12 years ago.

Because of the region's cost disadvantage, we see that this trend will continue. The region is likely to see a steady erosion in total employment as improved productivity forces fewer employees.

Timber supplies in the region have been stable, at least through 1988, averaging a sales program of some 6.7 billion board feet from Federal and State lands. However, in recent years, the cut has substantially exceeded the volumes that have been sold. A large reason for that is the tremendous in log exports.

In the region today, as of the end of 1988, some 4.5 billion board feet of logs were exported to the Pacific Rim. That's up from just over 3 billion board feet in 1987 and a new record compared to the last previous peak set in 1979.

In fact, the log export market is really the only area in the Pacific Northwest that has seen a substantial growth in both demand and price for its products. Well, earlier, I said that the real issue is not the future of timber, but it is the future of forests in the Pacific Northwest.

We feel that the region must capitalize on its competitive strengths and that means keeping jobs in the Pacific Northwest, rather than exporting them to the Pacific Rim, along with logs. It means concentrating production on the most productive timber lands, which is most often the private sector.

Specifically, promote increased production on the nonindustrial forest lands, who harvest currently just 36 percent of the timber that they grow. They own 18 percent of the forest lands in the region. They supply just 5 percent of the total harvest in the region.

It also means increasing raw material utilization efficiency, encouraging economic diversification by developing the nontimber resources of the public lands, and in the near term, redirecting Forest Service timber sale programs to those stands outside of old growth and spotted owl habitat.

Thank you.

[The prepared statement of Mr. Olson appears at the conclusion of the hearing.]

Mr. VENTO. Thank you. We'll get back to you with some questions in a moment. We have Mr. Jerry Rust, county commissioner, Lane County, Oregon from Eugene, Oregon. Welcome, Jerry.

STATEMENT OF JERRY RUST, COMMISSIONER, LANE COUNTY, EUGENE, OR

Mr. RUST. Thank you, Mr. Chairman, thank you very much. I want to tell you what a great thrill it's been to sit here since 10 a.m. this morning. I wouldn't have missed 1 minute of it. I appreciate the sensitivity of your members, the questions, the comments, and the thing that I'm going to take back to Oregon is the feeling that there's some insight and some oversight going on back here. I want to thank you for that and it's a real privilege to be able to make a few comments for the record.

First, let me say at the outset, I think we can coexist with the spotted owl. In fact, I welcome the listing of the spotted owl because it's my impression, as someone who's been in the forest products industry, that we have been overcutting our national forests and the owl is the indicator specie for a healthy forest. And that's what we need in the long run, is a healthy forest.

It also means that the areas that are set aside for that owl are good for fisheries, water quality, the growing tourism industry in Oregon, the quality of life that's so important for businesses that are growing up and relocating there.

Let me say that even with the spotted owl set-asides, wilderness and all the rest, it's my impression, from a recent study that I saw, that about two-thirds of our timber base in the State of Oregon is still going to be devoted to timber management.

One of the greatest kept secrets I think is that between 17 million and about 20 million acres of land has already been cut over in the State of Oregon. So, that's almost 20 million acres that we have that is growing young trees, that we have as a land base to manage for the future. I think we're all concerned about job losses. I think there are ways to mitigate those job losses.

Log exports is a problem. There are issues like private timber substitution that's coming in. Reprogramming the sales, for example, in fragmented old-growth areas, retraining programs, and jobs in second growth. I want to speak to you for a few minutes about jobs in second growth and I know there have been a couple questions here today about our investments in our second-growth areas.

I think we can step up the jobs and the investment in second-growth areas and we can make more revenues for the future, grow more wood fiber, and put more people to work in the short term and secure greater wood fiber in the future. Precommercial thinning, thinning, salvage logging, on-site milling, pruning.

Pruning comes into play here because in a second-growth forest, you've got a lot of limbs and if you can take the lower limbs off, you're growing clear material which is worth from 2 to 3 times as much. So, that's an investment that I think the Federal Government could look at.

I'd like to urge you to make that investment and perhaps create something like a national conservation act and shift some of the appropriations from the old-growth logging and road building into the second-growth management. We're very concerned about the jobs that are going to be impacted. We have training programs that we have in conjunction with the Federal Government and the State government.

Let me speak about county revenues for just 1 second because as you know, we're partners with the Federal Government in sharing the revenues from these forests. The statistics that I have is that in 1988, the BLM sales were about \$157 a thousand. This year, in the first 4 months, they're \$246 a thousand. So, even though we're cutting at about two-thirds of what we were last year, we're going to get for the Federal Treasury and for the country treasuries, roughly the same amount of dollars.

One more point on that is, it's my impression that the Federal Government, by releasing all of these old-growth sales, has been flooding the market for years and has kept the price of timber out there artificially low. I think where we are now is a much healthier economic situation.

One of the things that it helps is the small woodlot owner who has about 15 percent of the land and some of these lands are the most productive of all. With higher priced timber, the small woodlot owner can afford to go in and intensively manage those lands and contribute to the long-term timber supply.

So, while some of the mill owners are scrambling, small woodlot owners are actually gaining from these higher prices. And again, I think it was a mistake to flood the market the way we've been. One, this is for sure—we can't keep up the last year's rate of harvest.

Let me say one final thing. I was in Siberia 2 weeks ago at our sister city out there, flew over one big, big forest. I looked down, went into it, looked at a lot of it. Their growth rings are about one-sixteenth of an inch. They grow trees about 1 foot a year. We're growing trees in Oregon from 3 to 4 feet a year and sometimes, one-half inch growth rings.

We've got the richest coniferous forest in the world in the States of Oregon and Washington, and I implore the Congress to recognize

this, as I understand you have, and I urge you to help us retain some of that ecological treasure which belongs to the entire Nation.

Thank you very much.

[The prepared statement of Mr. Rust appears at the conclusion of the hearing.]

Mr. VENTO. Thank you. Commissioner Kupillas.

STATEMENT OF SUE KUPILLAS, COMMISSIONER, JACKSON COUNTY, OR

Ms. KUPILLAS. Thank you.

My name is Sue Kupillas. It's a privilege to be here today. I live near Eagle Point in southern Oregon and have served on my local school board for 8 years, on the State board of directors of OSBA for 6, and was elected in November 1988 to the Jackson County Board of Commissioners.

What brings me before you today are the current and abrupt changes in forest management policy, which cause me to have a deep concern for the future of our local communities so dependent on this timber resource.

Jackson County relies heavily on O&C funds for general fund operations which include law enforcement, community health care, elections, among other things. Burke Raymond, our county administrator, in his 1988 budget message stated:

As I pointed out last year, the county continues its heavy dependence on timber cut to support the myriad of activities in which we're involved. Since we are so dependent on the level and price of timber cut, it still remains true that our destiny is determined by forces beyond our control.

Ironically, this year, our O&C receipts came in at a record high in the country; however, we're budgeting for a severe drop over the next couple of years.

In basic employment outside county services, five Oregon counties are more than 70 percent dependent on the wood products industry. Jackson County, along with 10 others, are from 50 to 70 percent dependent on the lumber and wood products manufacturing for basic employment. Schools also have a direct dependence on Federal forest lands.

Last year in 1988-89, \$1,386,000 was distributed to Oregon schools through the Federal forest-fee allocation. The district 9 allocation where I'm a member of the board was around \$200,000. This may not sound significant, but our district had to borrow \$1 million this year to fix 15-year-old roofs, replace 25-year-old buses, build a few more classrooms and complete our federally-mandated asbestos abatement, which cost us \$250,000.

The \$200,000 helped make the payments on our loans. As a district, we will have severe difficulty operating if we don't complete each one of these projects. District 9 serves 3,200 Oregon children who live in the timber and agricultural dependent communities of Eagle Point, White City, and Shady Cove.

It's not just the Federal forest-fee allocation that's important, but the family wage jobs within the community that make the people want to stay and invest in our community. In a resource dependent area, both the receipts from Federal forests to help provide services

and the family wage jobs from the manufacturing of wood products are needed to provide a balance of services.

The reason is that in counties like Jackson County, over 50 percent of the land is publicly owned, mostly by the Federal Government. Because we rely on property tax for service and we have a greatly reduced land base to provide that, property taxes are high and they are primarily to support schools and city services.

The Jackson County Board of Commissioners has approved a resolution that urges the Congress to enact emergency legislation to require more information on the needs of the northern spotted owl and to delay the immediate affects of that listing; to expedite timber sales outside enjoined areas, and to support that directive with supplementary budget appropriations; reach a compromise that yields a continuous, predictable, stable timber supply while the spotted owl issues are being resolved; clarify land management statutes so that disputes over timber supply can be resolved in a more timely, reliable, and conclusive manner; restore the forest planning process of U.S. Forest Service and BLM lands; and take measures to ensure that all involved Federal agencies comply rigorously with existing law so as to reduce the possibility of judicial review.

Over 2,000 local residents attended a hearing where we took testimony regarding this resolution. This large attendance and the number of letters and phone calls have given me a clear indication that timber supplies are critical concern to residents in Jackson County. We are counting on you to help find solutions to the timber supply issues.

I thank you for giving me an opportunity to testify here today.

[The prepared statement of Ms. Kupillas appears at the conclusion of the hearing.]

Mr. VENTO. Thank you. Finally on this panel we have Mr. Al Goetzl. Albert, please proceed.

STATEMENT OF ALBERTO GOETZL, FOREST ECONOMIST, NATIONAL FOREST PRODUCTS ASSOCIATION, ACCOMPANIED BY JILL NICHOLSON, GOVERNMENT AFFAIRS REPRESENTATIVE, PACIFIC LUMBER & SHIPPING

Mr. GOETZL. Mr. Chairman, thank you very much.

My name is Al Goetzl. I'm with the National Forest Products Association, where I am a forest economist. My major responsibilities with the association is in tracking lumber markets and trade flows.

Accompanying me at the table this afternoon is Ms. Jill Nicholson, who is the government affairs representative, Pacific Lumber and Shipping, one of our members out in the Seattle area.

My purpose on this panel is basically threefold. First is just to describe to you the current wood products market and the demand levels that we are anticipating in the near future. Second, to note the contribution of the timber sales program to the regional economy. And third, just to reemphasize the importance of that timber sales program to the local communities in the area.

To begin with, a description of the markets. Wood demand, right now, as many of you may know, is at historically high levels. This year, we anticipate soft-wood lumber demand in the United States

to approach about 45 billion board feet. Now, many say that that's down from a few years ago and that's true.

In 1987, we peaked out at about 50 billion board feet. But keep in mind that 45 billion board feet is higher than any single year we ever had in any earlier decade. The peak year in the 1970's was about 42—a little bit better than 42 billion board feet. So, my point is that even though housing starts have declined somewhat in the last couple years, there are many things going on in the marketplace that are still elevating the demand for wood products in the United States.

Moreover, our export demand has been quite healthy and has been growing in the last few years. There are many factors, many reasons for this, including aggressive market development on the part of the U.S. industry overseas, a favorable exchange rate, growing overseas economies. But the upshot of all that is record exports last year of about 5.3 billion dollars' worth and we anticipate continued growth.

More significantly, we anticipate that the growth is going to continue more dramatically in the processed wood products area than in raw material.

One of the keys, I think, to being competitive on a worldwide basis is a rational and stable timber supply and obviously timber is one of the key ingredients that goes into the cost structure of producing lumber and other products. If you don't have a rational timber supply and secure timber supply, if these are constraints on that timber supply, the price of that raw material goes up, as we have seen, and that makes our producers much less competitive.

Moving quickly to the second point, the importance of the timber sales program to the regional economy. As other witnesses have already pointed out, the Northwest is highly dependent on the timber-based economy. There are at least 130,000 direct jobs employed by the industry, probably as many as 250,000 jobs employed either directly or indirectly because of the industry.

It represents about 20 percent of the manufacturing jobs in the region. I think to say that the timber-based economy is not an important segment of the Northwest is a major fallacy.

Finally, the importance to local communities is not only in terms of jobs, but in terms of revenues. As you know, about 25 percent of gross timber revenues from the national forests are returned to the counties. Last year, that amounted to \$144 million. There was another \$69 million returned to the local governments from the BLM sales.

Clearly, it's an important segment of county government. Numerous communities that dot the landscape in Washington and Oregon are entirely dependent on the timber-based economy.

I think with that, I'm just going to sum up and be available for questions. Again, we anticipate that wood products demand is going to continue at a healthy pace. We think we can be competitive on a worldwide basis provided that we can provide our producers the environment and climate to be world competitive.

Thank you.

[The prepared statement of Mr. Goetzl appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Mr. Goetzl.

I have a question. We've been asking this question a different way, but I thought I'd ask someone from the forest products industry.

Isn't it inevitable that eventually all the old-growth forests available for harvesting will be gone? What is the timber industry doing to prepare for this eventuality and to wean itself away from old growth to second-growth timber?

Mr. GOETZL. I think you probably got a response to that earlier, but from our standpoint, there's probably another 50 years or so of old growth remaining and we probably need that time in order to bring a second growth up to a harvestable age. It's definitely true in—

Mr. VENTO. Well, is that based on the Forest Service's cycle right now? You're saying it's an 80-year cycle? Is that what you're talking about?

Mr. GOETZL. Whatever cycles are prescribed by the management plan. It's, I think, typically about 80 years.

Mr. VENTO. I mean, the point is that the old growth, by definition, is 200 plus years old. I think we had some scientists agree. I don't know that whatever they agreed to have to accept. We can do a lot of things, but we can't legislate scientific facts.

Mr. GOETZL. I think there's some disagreement on that definition.

Mr. VENTO. Well, you're not participating.

Mr. GOETZL. I'm not participating in that debate, but suffice it to say, I think, that the old growth of tomorrow may in fact be the early growth of today. In my view, as a forester and a forest economist, old growth is not a static phenomenon. It's something that probably changes over time and we develop new old-growth stands over time, it would seem to me.

Mr. VENTO. Well, not if you're on an 80-year cycle. The real point is that there are conflicts in terms of the Endangered Species Act and other societal values.

In other words, you just think you have old growth for 50 years. How many million acres of old growth do you estimate then?

Mr. GOETZL. Well, maybe that's the point I should make. I guess we estimate there are about 7.5 million acres of old growth.

Mr. VENTO. Right.

Mr. GOETZL. And of that, of that 7.5 million acres, about 56 percent is already set aside in wilderness or some other areas. So, the other 44 percent is what is currently available for timber production, and even a part of that is, as a practical matter, not available because of environmental and other regulations relating to timber harvesting.

Mr. VENTO. I think the key here is that there has been an accelerated cut from public lands in the last 5 or 6 years in Washington and Oregon, hasn't there, Mr. Goetzl?

Mr. GOETZL. The demand for wood products has been very high in the last several years and we anticipate that to continue and we've been supplying part of that demand from the national forests. Now, the national forests have the largest inventory of softwood, sawtimber. Nationally, it's about 50 percent of the total saw timber inventory, yet they don't provide anywhere near that in terms of the percentage of the harvest.

Mr. VENTO. Well, that's true.

Mr. OLSON, you commented about that. What lands have the greatest capacity to increase timber supplies in the Pacific Northwest?

Mr. OLSON. I think it's clearly the nonindustrial, private sector if we base the ability to increase timber supply on growth versus cut.

Mr. VENTO. Because they have preferable land and have more productive areas? What is the basis for that?

Mr. OLSON. They have the highest sites typically. They're low elevation.

Mr. VENTO. High production sites, yes?

Mr. OLSON. Yes, and on average—

Mr. VENTO. Higher rainfall?

Mr. OLSON. That's probably correct. On average, they're currently utilizing just 36 percent of the timber that they're growing, so there is inherent in that substantial potential to increase the amount of timber.

Mr. VENTO. Mr. Olson, what has been the biggest factor in this upsurge of increased production and demand from the Pacific Northwest? Why is this? We haven't had an increase in growth of homes. What has it been?

Mr. OLSON. I think the biggest factor is the log export market. There was a 1 billion board foot or more than a 1 billion board foot increase in raw log exports going from 1987 to 1988.

Mr. VENTO. In your testimony, you point out that the board feet costs have actually gone down for Douglas-fir in the last 2 or 3 years, right? From 260 to 240.

Mr. OLSON. In terms of both real price or adjusted for inflation?

Mr. VENTO. Well, the adjusted price I think is what you gave us in your testimony, isn't it?

Mr. OLSON. That's correct. The nominal price, unadjusted for inflation, both have dropped since 1979 for finished Douglas-fir lumber.

Mr. VENTO. Well, Commissioner Kupillas, I appreciate your concerns about the necessity of stability in terms of the sharing of receipts, but the exporting of raw logs is having a big impact on the mills in your county as well, isn't it? I note your resolution says you think we ought to do something about the export of raw logs.

Ms. KUPILLAS. The export of raw logs has not traumatically—it doesn't affect the mills in southern Oregon. Our land base really—I think most of the export of logs has to do with logs exported out of Coos Bay and further north out of Washington.

Mr. VENTO. It isn't affecting you?

Ms. KUPILLAS. It isn't affecting, although we do have a number of mills that have notified us, through the Warn Act, that they will be closing or curtailing operations within the next 3 months.

Mr. VENTO. So, they are taking the logs or they're bidding higher for some of the logs, aren't they?

Ms. KUPILLAS. Much higher.

Mr. VENTO. Is that the experience you've had? Well, my time has expired.

Mr. Volkmer.

Mr. VOLKMER. I'd like to continue on that just for a short bit because as I understand your location, most of your mills out there operate from national forest lands or BLM lands?

Ms. KUPILLAS. That's correct, except for a few that have their own timber lands.

Mr. VOLKMER. But the bulk of it is national, Federal lands?

Ms. KUPILLAS. Exactly.

Mr. VOLKMER. And so, if there are no sales from those Federal lands, those mills will close down?

Ms. KUPILLAS. That is correct.

Mr. VOLKMER. You say you've been notified by some mills that if things don't change in the next 3 months, they're going to have to close down?

Ms. KUPILLAS. That's right.

Mr. VOLKMER. About how many mills have you been notified by?

Ms. KUPILLAS. I don't know where it stands today exactly, but two mills have notified us of closure and one of curtailment of activity and there are two more that we've got word that are about to notify us.

Mr. VOLKMER. Do you have any idea about the number of people we're talking about?

Ms. KUPILLAS. I knew you were going to ask me that. No, I don't, but I can get that information for you.

Mr. VOLKMER. I'd like to have that information sent to my office.

Ms. KUPILLAS. I will try to do that.

Mr. VOLKMER. Because you see, your testimony conflicts a little bit, if a person thought you both were talking about the same thing with Mr. Rust. Mr. Rust sees what's happening as a good thing.

Mr. Rust, I think your viewpoint is a little different than Ms. Kupillas, is it not?

Mr. RUST. Yes, sir.

Mr. VOLKMER. I mean, where you're coming from. You're coming from a different area.

Mr. RUST. Well, I come from Lane County which has probably more at stake in terms of number of jobs and revenue than any county in the United States. I don't take this lightly at all.

Mr. VOLKMER. Well, how many mills have you been notified are being closed down?

Mr. RUST. A number, but you've got to remember that it's a shifting type of economy. For example, Weyerhaeuser owned some very, very large holdings east of Eugene/Springfield and for the last, I think, 30 years, they have been cutting that timber. Once they completed that cycle, they then made a move after the Federal timber and then they sent out the slips to their workers and said, OK, now if we don't get our hands on the Federal timber, we're going to have to close our mill.

At the same time, Weyerhaeuser is one of the largest exporters that we have in our State, in our region. So, each of these mills is peculiar, is different. Some of them depend on old growth entirely. Some of them have already made the shift to second growth. Some, as you heard this morning, Bohemia, is 40-60, and so it's not an easy question and these are economic decisions that business people make.

Sometimes they defer investment. Sometimes they decide to run the machinery until they get every last drop. Or, as in the case of Weyerhaeuser, they completely liquidated their holdings in that particular area and then turned around and told the workers that we're going to shut the mill because the environmentalists have locked up the woods.

So, I look at the short-term situation and I've got to lift my eyes up a little bit and look at a longer range situation, too, and what I tried to indicate was that the spotted owl, while it's catching a lot of flack, is no more than a symbol, is no more than a kind of indicator of a very healthy forest, and if that forest's health, the essence of that forest, that deep, dark, mysterious forest, if it all becomes second-growth plantation, that isn't a healthy forest for us anymore, sir. That's my opinion. So, I do have a bit of a different opinion.

Mr. VOLKMER. In other words, what you see out there in Oregon is a change in the economy really, from what you're telling me.

Mr. RUST. Yes, sir, I do, but I still think that the wood products industry—and I'm a woodlot owner myself—is going to continue to be strong and vital. I think we can live and coexist with this owl. That's why I was suggesting, in my testimony, that we ought to be investing in more jobs in the second growth.

We have tremendous capacity in the BLM and the Forest Service to bring on those jobs if we could have a little bit of investment into the second-growth economy.

Mr. VOLKMER. Well, if Jackson County though doesn't have very much privately owned matters or State-owned lands and all they've got is original or old-growth Federal lands, they can't do that, can they?

Mr. RUST. I think we need to recognize some regional differences and I certainly would. On the other hand, I think there are plenty of areas for investment in second growth because Jackson County, too, has been cutting and logging for 100 years down there. There's 1 million acres or more in that area that are in regrowth and regeneration and they could use various stages of investment and management.

Mr. VOLKMER. Well, I don't know specifically and I'm sure the gentleman from Oregon to my left over here may know a little bit more about Jackson County than I do, but if your secondary growth isn't ready to be cut, you're not going to espouse that we go out and cut it.

I mean, if the trees are only 6 inches in diameter or 10 inches in diameter, you're not espousing that we go cut those, are you?

Mr. RUST. Again, if the trees are growing very, very tightly together, you can actually take one harvest, selectively, you can thin that material, and in fact, 6-inch logs are in fact in demand right now, people are so hungry for wood.

Mr. VOLKMER. As a small woodlot owner, does that mean—for someone who is from the Midwest—that you have a small tract with trees on it?

Mr. RUST. Yes. I and several other people—I was a tree planter for a number of years and back then, we bought, together, a tract of about 320 acres and it's in second growth. Most of the stumpage

is 1 foot to 16 inches at the base and we're selecting harvesting that through time.

Mr. VOLKMER. Thank you, Mr. Chairman.

Mr. VENTO. Just for the record, Commissioner Kupillas, how much old growth are the mills in your area depending upon? Are there some in Jackson County?

Ms. KUPILLAS. Somewhat.

Mr. VENTO. Old growth. How much old growth is in Jackson County, the county you represent?

Ms. KUPILLAS. I don't know for sure.

Mr. VENTO. Are these mills affected by the—they're affected by the old-growth issue, is that right, that there's old growth in this area or that they are dependent upon old growth? Why would they be closing?

Ms. KUPILLAS. There are some of the mills that are dependent on old growth and there are some of the mills that, quite frankly—the timber supply base has eroded dramatically in Jackson County and there's not enough wood product to go around.

Mr. VENTO. On the public lands or private lands or anyone's lands; is that right?

Ms. KUPILLAS. That's right.

Mr. VENTO. Mr. Smith.

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman.

Mr. Rust, on February 22, 1989, the Jackson County court joined as intervenor against the injunctions imposed by the Audubon Society and others. Did you join in that?

Mr. RUST. My county did, yes.

Mr. R. SMITH of Oregon. In Lane County, I'm sorry.

Mr. RUST. Yes. I was not in favor of that, but—

Mr. R. SMITH of Oregon. But a majority of the county—

Mr. RUST. The majority of the county did, yes. I think virtually all the timber counties in Oregon did, yes.

Mr. R. SMITH of Oregon. I think they did. So, today you're not speaking for the Lane County court, I assume?

Mr. RUST. Certainly not.

Mr. R. SMITH of Oregon. You're speaking for yourself as an individual?

Mr. RUST. My office, yes.

Mr. R. SMITH of Oregon. I want to point that out simply because the majority of the Lane County court take the other side of this whole spotted owl issue.

Ms. Kupillas, on the other hand, I appreciate the fact that you are here representing the Jackson County court with respect to the resolution that you have passed and I want to go over it again to identify exactly what it says because as the chairman noted, there is a difference in these two positions.

You would like to delay the immediate affects of the listing of the owl.

Ms. KUPILLAS. That's correct.

Mr. R. SMITH of Oregon. And tell me why you think that's important.

Ms. KUPILLAS. Because with the injunctions, a lot of timber has been taken out of the production base without proof that the owl is going to be listed or that it is in fact endangered. I think it's of

critical importance in that if we're going to erode our base of timber so dramatically, that we have some certain reasons for doing that and when it affects our economy.

So, that was basically our reason for saying, let's keep the timber base at least at the levels that it has been in recent years, rather than restricting timber cutting on all of the enjoined areas.

Mr. R. SMITH of Oregon. And you've mentioned the reason for that is because your county, Jackson County, is so heavily dependent, as Lane County is, upon these revenues for schools and roads and services. I understand that Lane County receives about \$46 million a year from the receipts of timber.

What are the property taxes paid in Lane County, Mr. Rust, do you know?

Mr. RUST. Well, we have a 1919 property tax base and it's about \$6 million for \$250,000. I don't minimize at all the historic partnership with the Federal Government.

Mr. R. SMITH of Oregon. I wanted to make the point—\$46 million of income to the county and you only pay \$6 million in property taxes and if you lose your timber, you've lost—you're either going to increase your property taxes or you're not going to have the services.

Let me ask you, Ms. Kupillas. Do you know what percentage of timber receipts flow into Jackson County versus the property taxes that you pay?

Ms. KUPILLAS. Our total amount received by the county was \$17.5 million this year, which was a record high, by the way. It has been around \$11 million. Our tax base for Jackson County is 25 cents per thousand and when we split that with the county school fund, we come up with around \$650,000, which isn't enough really to run our county for a week.

Mr. R. SMITH of Oregon. Very small.

Ms. KUPILLAS. It's a very insignificant amount. We have the unusual—well, we tried to pass a tax base in 1985 and it failed, but we have the predicament that when O&C receipts are coming in very well, then people say you don't need a tax base.

And when they aren't coming in, that means the timber industry is down for one reason or another and people don't have enough to pay their property tax. We have a large number of foreclosures and so, of course, they aren't going to vote a higher property tax.

Mr. R. SMITH of Oregon. Tell me why you have, as one of your proposals, the restoration of the forest planning process of the Forest Service and BLM lands. What do you mean by that?

Ms. KUPILLAS. We feel that the forest planning process is not going forward, I guess, partially by rumor and partially because of the injunctions. There isn't the allowable harvest out there, so the forest planning process, quite simply, isn't working.

The forest planning is being done by the courts and I know that's been said a lot today, but we certainly feel it in Jackson County also. We would like to have the forest plans go forward as planned by foresters and by managers who know something about forests.

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman.

Mr. VENTO. I thank the gentleman.

Mr. Jontz.

Mr. JONTZ. Thank you, Mr. Chairman.

Mr. Goetzl, I'm not sure whether you commented on the issue of log exports in your testimony or not. Would you like to do that?

Mr. GOETZL. Let me address that issue, since it's obviously an important concern to everyone here.

As you know, it's a very divisive issue within the forest products industry. There's a whole contingent for and a whole contingent against.

Let me say that, as an association, the National Forest Products Association and its members are currently looking and studying the log export question to see if we can derive a consensus out of the various positions within the industry proper. We hope to reach a consensus. We hope to have some positions on the bills that are currently being introduced.

I think we've reached some agreement. First, I think we've agreed that as an industry, that the issue of log exports is separable from the issue of timber supply and that the resolution, whatever it be on the log export question, is not going to solve the problem of timber supply for the vast majority of participants in the region.

We also have agreed that the export of private timber should be unencumbered, that a private landowner should have the ability to sell his product to the marketplace, whatever element of the marketplace is going to give him the best and highest price, whether it be an export-related market or domestic-related market.

We've also agreed, as an industry, I believe, that the substitution regulations probably need to be tightened in some fashion. I don't think we've hammered out exactly how we would propose to do that, but there is a consensus emerging, I believe, within the industry that there is a need for that to happen.

Finally, I think in terms of the overall question of log exports and who should determine whether or not they should be permitted, we have reached a consensus that that authority should reside with the Federal Government. We haven't hammered out the details or reached agreement on what we would propose to change, if anything at all, but we are working on that issue and hope to come back to you in the next few weeks or perhaps few months with a more unified industry consensus, on some of the elements of the log export question.

I hope that satisfies your question. That's probably the best I'm going to be able to do for you today.

Mr. JONTZ. Well, I appreciate the fact that various components of your industry may have a different view, but without wanting to be too harsh, to come in here and argue for a certain approach to the problems relating to management of our public lands based on a concern about jobs and then to find yourself in a position at all of defending log exports where you're clearly putting profits ahead of jobs, is a little bit of a contradiction.

If the issue is jobs, then we ought to protect jobs. If the issue is something else—I appreciate that there are other considerations that need to be reviewed, but I want to thank you for your answer.

Mr. Olson, you mentioned that thousands of jobs have and will be lost to modernization and that jobs will also be lost to declining timber supplies, but to a lesser extent. Do you want to comment any further as to the relative role of those two factors in job loss?

Mr. OLSON. Well, I think productivity improvement or modernization in the forest products industry, particularly in the Pacific Northwest has reduced employment rather dramatically. There are some 14,000 fewer people working today and the output by that industry is some 10 percent greater. So, the employment affect of productivity improvement has been dramatic.

Projections are that it will continue to be an important part of controlling the future employment picture of that industry. When we projected using Forest Service demand and supply models in the future of the forest products industry in the Pacific Northwest, we found that over the next 45 years or so, there would be, regardless of what you did with timber supplies, there would be a substantial loss in employment.

About 50 percent of the region's employment in the wood products industry would be lost. About 70 percent of that loss or 26,000 workers would be attributable to productivity improvement; the rest due to decline in timber supplies that is coming about because of overcutting on the private lands.

At one point, it was referred to as a temporary gap in the ability of the private lands to produce timber. It's a shortfall that's been predicted for several years and is now coming onto the scene. It's an issue in the Northwest.

Mr. JONTZ. Well, it is a figure that I think is of some significance or a statistic of some significance that you identify nonindustrial forest landowners as holding 18 percent of the timber land and producing less than 5 percent of the timber cut and contrast that to the South. With regard to the hardwood industry, 90 percent of the wood is produced by private owners. I'm much more familiar with hardwoods, which is a different situation.

What should we be doing to increase production on those nonindustrial, privately owned forest lands?

Mr. OLSON. I think first and foremost perhaps would be restoration of funds to the State and private forestry program and their technical assistant.

Mr. JONTZ. The administration wanted to zero that out again this year, of course.

Mr. OLSON. That's correct. And they have wanted to do that every year for the past several years.

I think also another look at the capital gains tax law and what the loss of capital gains tax treatment of timber sales revenues has done to the ability of the private, nonindustrial owner to manage their timber. And along with that, taking a look at the issue of whether or not reforestation investments and other timber land management investments should be capitalized or expensed.

A treatment of the taxes in a long-term investment such as timber are very important to making that investment attractive to the nonindustrial owner.

Mr. RUST. May I add one comment?

Mr. JONTZ. Sure.

Mr. RUST. On that, I think another thing you can do is to not flood the market with cheap Federal timber and that is what I was trying to get at in my earlier testimony, that maybe a year and a half ago, you could get maybe \$500 for a log truck full of second-

growth trees and you may have to pay a loader \$150 to take it out of there.

Today, you can get \$800 for that load. Why? Because the Federal Government's timber sales have been enjoined by one-third to the extent that it's restricted the supply, the price has gone up, and that, I would submit, is probably the greatest incentive of all for the small woodlot owner to manage that property as it should be managed, is the fact that we, for the first time in awhile, are getting a decent price on the timber.

So, I think the policies of the Federal Government have a great deal to do with the price of timber and the productivity and the responsiveness of that small woodlot owner.

Mr. JONTZ. I want to thank you both for your answers. I appreciate the fact that my time is done, but I fear that I cut off Ms. Nicholson earlier. I think she wanted to add something to the answer.

Mr. GOETZL. Thank you. I think Ms. Nicholson has a couple of comments she'd like to make.

Mr. JONTZ. If the Chair would permit.

Mr. VENTO. Go ahead, Ms. Nicholson.

Ms. NICHOLSON. Just real briefly, your question about log exports and jobs versus profits—we come from a little bit of a unique position at Pacific Lumber and Shipping. We export logs and we also own mills and we're not a large landowner like Weyerhaeuser. As a matter of fact, we don't operate on any of our own land. We don't have land. We operate off the national forests, State land, and we also buy sales from private companies.

But it's not quite as simple as you're making it regarding the log exports and jobs, profits, that whole connection, because our participation in the log export market has allowed us to modernize our mills and make them competitive for this oncoming second growth that we're having to modernize for.

Mr. Vento asked that question about well, what are we going to do when all the old growth is gone. Well, what we're going to do is work with second growth and we can't work with second growth unless we have the capital to invest in our mills. Nobody is going to invest in their mills without long-term certainty of supply because who knows whether they'll have the money to pay back the loans that it costs to invest the millions and millions of dollars in those mills.

And then second, and I'll say this briefly, there have been several comments made about how mill modernization causes job loss. I can't speak for the industry as a whole, but in our mills—and we only have three mills, in Morton, Randall, and Packwood, Washington, which are in eastern Lewis County—but our employment has increased a little bit and we have modernized and are able to cut any size of timber, both old growth and second growth.

We are using less raw material to create more product and our employment base is staying the same and it's making us more competitive. So, these broad generalizations that are occurring here, they don't apply to everyone and people are trying to be responsible here and I just hate to see everybody categorized into this whole awful exporters that are trading off jobs and profits because there are many responsible people in this industry that are trying to make things work.

Mr. JONTZ. Thank you, and I thank the chairman.

Mr. VENTO. Well, we can't change the entire market and the way they only accept unfinished products. Obviously, that could help modernize the mills, too. Nobody has any opposition to that.

I just think the question is whether we can sustain the type of cuts from Federal land and from State and private lands to do that. I mean, no one argues that it doesn't help the modernization of the mills. If you ship out a raw log, you're losing a lot of jobs that would otherwise be attenuate to the finished product being shipped out, right? I don't think there's any disagreement.

Ms. NICHOLSON. Well, I don't think that's necessarily so because a lot of private landowners, the big companies, the reason they're selling those logs and cutting those logs is because the market is so high and nothing requires them to cut it all. They can wait and sit on that timber and produce it in their own mills and none of that timber will go to mills like mine, the company that I work for, that is sitting in the middle of the Gifford Pinchot National Forest.

Our mills are located in the middle of the national forest—

Mr. VENTO. But part of that is driven backward by a policy from countries that won't accept finished products.

Ms. NICHOLSON. I think that's right, and let me say, we're a leading exporter of finished materials, my company is, so believe me, we believe in that.

Mr. VENTO. Well, we're also buying a lot of products from Canada in the same way, I guess, raw logs.

Mr. Herger, you don't have any questions?

Mr. DeFazio.

Mr. DEFazio. Thank you, Mr. Chairman. I won't get too much into my favorite subject, log exports, but just a couple of points. There's another side to the countries that won't accept finished products or raise artificial barriers, particularly against Bohemia, which we heard from today, which probably has the state-of-the-art glue-lam equipment in the world some Japanese would dearly love to have.

They have a crummy little glue-lam industry over there that's very inefficient and they've decided they want to build it up, so they decided they will classify our glue-lam as plywood so that they could raise the tariff on it, so they can subsidize and protect their industry and build it up.

It's the same thing they're doing with aviation in taking Boeing's technology over there. In 20 years, we won't have an aviation industry. So, we either get smart or we don't get smart. We're competing against ourselves to export logs. British Columbia says you can't export unless it's surplus domestic demand and will take 100 percent of your profits from those exports.

There's no greater incentive to build the mills and if the Japanese don't get the raw material from us, they're going to buy the finished products. Now, you can argue until the cows come home about, they'll go to the Soviet Union, they'll take the spruce out of the Soviet Union, they'll invest \$100 or \$200 billion to build the infrastructure the Soviets don't have, they'll change to radiata pine, which they use now to make crates.

Anyway, I'm glad to see there's some slight agreement, but it's not a hearing on log exports. Otherwise, I would have had a lot more to say about that.

Back to the subject at hand, Jerry, what harvest level—and I'm just trying to get at a point here. You recommended a preferred alternative and the board of commissioners did for the Willamette. Do you remember what it was?

Mr. RUST. It was alternative D.

Mr. DEFazio. 450, something like that?

Mr. RUST. I think that was it—4.5 billion.

Mr. DEFazio. And under the injunctions, we're looking at slightly over 200; is that correct? I think 220 is what the Willamette is talking about putting out this year. It's about half of what you recommended. And you feel in good conscience that what you recommended would be a sustainable alternative that wouldn't require liquidation of old-growth resources, but it would be a sustainable level?

Mr. RUST. Yes. Wasn't the Forest Service preferred alternative six point something?

Mr. DEFazio. Yes, it was 6.50 or so.

Mr. RUST. I felt comfortable with the 4.5.

Mr. DEFazio. Right. What I'm trying to get at is the difference—and I think at least part of the difference in the level you're talking about and the level we're harvesting at goes back to this mature growth. If there's one thing that comes out of the hearing today, it can be the discussion that's gone on around mature versus true old growth.

I'd just like to put the same question to you that I did to the earlier panel, which is, if we could forge a compromise that allowed us to get significant harvest out of mature timber rather than eroding and entering into large, intact blocks of old growth for say a 2-year period while we go ahead with the intensive inventory and study and identify the large mature blocks and agree upon an acreage figure and then decide to have a debate over whether or not and how much to set aside, and I believe some would be set aside.

Does that sound like a way to bridge this couple of year period with some significant timber supply? You're looking at 220 off the Willamette where you feel 450 is sustainable and 220 is a dramatic drop in 1 year. Do you think that's a—

Mr. RUST. I think there was a framework laid out by one of the speakers in the first panel that had to do with identifying areas that could be harvested, identifying the areas that no way, and then leaving the balance to negotiate over. I do think though that we ought to be aiming for a spectrum of age classifications, rather than just old growth over here and then a bunch of new plantations and then you've lost the 200, 300, 400-year-old spectrum.

So, I liked what Jerry Franklin was saying about managing for the full-age categories. Yes, not to belabor this point, Mr. Congressman, I do think we can have a short-term solution that gets us in an area that is again, substantially below last year's and historic harvests over the last 2 years, probably a third less than that, but probably a third more than what the injunctions would allow.

Mr. DEFazio. Well, it's probably close to the 10-year average as opposed to the 2-year average.

Mr. RUST. Well, I really need to review the entire thing before I could say categorically that that's something that I would support, but certainly on a 2-year basis, I'm for doing that and, at the same time, I hope that you and others would look at this entire matter as a transition and try to identify the elements that we need to address and I know you're addressing many of them with the export issues, investments in second growth, mill retooling, retraining of workers.

There's a whole spectrum of issues out there that need to be addressed while we're getting that 2-year log supply together. Let's make a commitment then to look at the long haul and get that transition plan seriously in place. Thanks for letting me say that.

Mr. DEFazio. Well, there are a lot of elements that have to be addressed here and I think you brought up a crucial one in your earlier testimony that is Federal investment and that's something that the more I read and I know there's testimony here that others, who come from counties that don't have forest revenues, might think what a windfall for these counties to have the forest revenues.

But you've got to look at what percentage of our counties are owned and controlled absolutely by the Federal Government with no other opportunity for revenue and look at the total west side revenues.

As I understand, region 6 last year was about \$850 million from the Federal Treasury, \$235 million only was spent on management. Less than \$200 million went back to the counties in the partnership that we have, and the balance of over \$400 million went to the Federal Treasury for whatever purposes, whether it went to other areas of Forest Service depending on whatever. It just goes to the general fund.

I think that we need a commitment and I believe you're making that point, from the Federal Government, that will be part of the solution—there's no one big solution out there and a lot of people are looking for that. I wish there was, but there isn't.

The solutions will be made up of a whole lot of little parts and one of them is a commitment to Federal investment because we can't get those enhanced levels of harvest in the future if we don't manage the forests now more intensively, particularly the areas we agree upon that are going to be managed.

Mr. RUST. Thank you, thank you very much. I personally don't feel parochially about this. It seems that we have national forests or forests certainly in most of the 50 States and I would think that Congress would have an interest in seeing this happen throughout the United States wherever we have forests, wherever we have unemployed, wherever we need to regenerate and make our forests more healthy.

I would urge that we look at a national conservation act that would get our young people into those forests and making those investments throughout the country.

Mr. DEFazio. Mr. Olson, could you just briefly address the barriers that we've heard about—and I believe it's—I'm not certain what Medco is doing down in Ms. Kupillas' area, but I know that Weyerhaeuser in my hometown of Springfield, as was mentioned earlier, is looking at bids on public land. We won't get into all the

things that have to do with tributary or substitution all that right now, but there is, it seems to me, still a significant impediment in terms of SBA and then making that transition and should SBA be modified. I mean, what are the implications for the smaller firms?

Mr. OLSON. Well, the specifics of it are difficult to get into here, I think. But the Small Business Administration set aside program does tend to partition the timber marketplace for Federal timber where it excludes firms of greater than 500 employees from buying certain timber sales and sets aside those timber sales for firms of less than 500 employees.

In areas where there's a very hot, competitive market for timber, that partitioning of the marketplace tends to overstate the amount of competition there is for that timber.

Mr. DEFazio. Well, in the case of—I know you've looked at some individual firms and their bidding and what they have under contract and that. Can you give me any insight on, for instance, the Weyerhaeuser situation in Springfield? You know, they have historically been dependent upon private lands. They bought up all the GP's holdings a few years ago and now they're attempting to enter into, it seems, more into the public market, somewhat to the consternation of the smaller public, dependent mills.

Any comment on that?

Mr. OLSON. I haven't looked at that situation closely enough to really comment on it directly. I know that in that situation, depending on how large the SBA set-aside is for that ranger district, it would exclude Weyerhaeuser from buying timber from those forests.

Mr. DEFazio. I guess the point I'm getting at is whether the wisdom thus far of the Federal Government and the Forest Service is—I mean, we have set up a system that does protect the smaller mills and public dependent mills in terms of bidding and market share. But I hear there were a lot of rumblings before the industry started meeting behind closed doors—all the CEO's across the country about SBA and log exports and other issues.

Now, suddenly, we're only dealing with one issue, which is spotted owl and old growth and I agree we have to focus on that, but I think that as soon as we see a shorter, long-term solution there, suddenly SBA is going to be out of the closet again, as is log exports and a bunch of other things, and the industry is going to be back at it.

I just want to look ahead a little bit, just like I looked ahead to this crisis and I want to look ahead to the attacks or whatever is going to happen with SBA, and I'm trying to get a sort of reading on how essential you see that to be, that program and whether we need to continue that program into the future, particularly with the changing sources of supply. It's a little preventive or preemptive work here I guess is what I'm looking at.

But anyway, we can get into that on another day. It's late. I was up all night on the plane because my first plane didn't fly, so I'm not at my wittiest and now that Mr. Jontz is in the chair, we'll be greatly entertained and I can sit back and relax. So, I will yield back the balance of my time.

Mr. JONTZ [acting chairman]. The gentleman from Oregon has one question and then I think we have another panel to call.

Mr. R. SMITH of Oregon. Thank you for your kindness, sir.

Ms. Nicholson, I want to make sure that we're not straying in this hearing toward finding answers to this whole spotted owl problem and banning log exports. I want to engage you in a little discussion about log exports and if you know these numbers, I'd be appreciative.

My friend from Oregon has introduced legislation which would allow the States to determine whether or not they export logs which, in the case of Oregon, would mean that Oregon would not export logs, and that number is about 100 million board feet in Oregon.

I understand that of the 4 billion board feet of logs exported, 82 percent of that number come from private lands, which this Congress is not going to control, nor are the States of Oregon and Washington going to control, and should not control. That's called socialism, in round terms.

So, the amount left in Oregon, since you cannot export Federal logs, there is a substitution issue. If you eliminated the substitution in Oregon, it would be estimated from 300 to 400 million board feet. So, in total, you've got 400 to 500 million board feet and with the owl, we're talking about 3 billion.

Now, I want to ask you about the State of Washington, if you can help me with numbers that might parallel those.

Ms. NICHOLSON. Well, my understanding—and I'm really not an expert on this issue—but my understanding is, from public lands, State lands in Washington, the level of sale is 600 million board feet.

Mr. R. SMITH of Oregon. From State lands?

Ms. NICHOLSON. From State lands.

Mr. R. SMITH of Oregon. Are exported.

Ms. NICHOLSON. Are exported.

Mr. R. SMITH of Oregon. Raw logs?

Ms. NICHOLSON. Raw logs, right. And that is somewhat insignificant, not only in the fact that it's not a very large number relative to the whole picture of timber available off Federal lands and what has been enjoined, but mills, as I said before, have been located in the middle of national forests where they believed at the time, 50 years ago or 14 years ago or whenever, that there would be a steady supply of timber off the Federal lands.

It's only economically feasible for a mill to bring timber from a certain area around. For instance, our mills transport logs from say a 30-mile radius into our mill and that's economically feasible.

So, say there's State timber available 100 miles away from our mill, that's not going to help us because it's too costly for us to bring that State timber, which now, through some export restriction, could possibly become available for our mills. It still wouldn't be economically feasible for us to produce that.

Mr. R. SMITH of Oregon. All right. I appreciate that and I will continue a lot of this discussion with the Chief. Thank you, Mr. Chairman. Thank you very much.

Mr. JONTZ. I want to thank the panel for their discussion and patience with us and dismiss you and call forward the final panel.

Mr. Charles Levin, staff attorney, Headwaters Inc., Grants Pass, Oregon; Mr. George Atiyeh, miner, Gates, Oregon; Mr. Steve Self,

director of timber supply, Timber Association of California, Sacramento, California; Mr. Tom Hiron, president of the Mad Creek Logging Co. Gates, Oregon.

Mr. Levin, we are ready for you to proceed whenever you are.

**STATEMENT OF CHARLES G. LEVIN, STAFF ATTORNEY,
HEADWATERS, INC.**

Mr. LEVIN. Thank you very much. I'm very pleased to be here. I represent a small grassroots organization in southern Oregon. Our organization, I want you to know from the very start, is not a preservationist organization, per se, but an organization which advocates sustained yield management on public lands.

We in particular deal with BLM land to a much greater degree than we do Forest Service land. I've put up for you to see a map of the O&C lands that we particularly deal with. I know Congressman Smith who is here with us today is very familiar with this. I don't know about the rest of you. I'd just like to point out the very pattern of land ownership which creates a distinct disadvantage to BLM from the very start.

Basically with BLM land management, we're beginning a race from well-behind the starting line, the reason being because the lands are already naturally fragmented due to a bizarre pattern of land ownership. What you see is a checkerboard. The checkerboard consists of Federal land, intermingled with private land.

The private land, as has already been discussed earlier today in other panels, is very heavily cut over. I believe it's in my written testimony, two-thirds of that private land resource, which is manageable, is under the age of 30 years. So, we're dealing with a very fragmented resource. Even if the BLM land itself was completely intact, it's surrounded on all sides, in a great number of cases, by heavy fragmentation.

Now, add to this critical bottleneck kinds of distribution problems. From east to west, we see big gaps. Part of that is already very fragmented due to the I-5 highway corridor and fragmentation from the Forest Service and private lands, as I've already said.

Some of this BLM land also contains critical low elevation old growth, referred today the importance of that. So, what I want to make clear to the panel today, to the Congress today, is that there is a very serious problem with how the BLM lands are being managed, that it is not too late to do something about it, however. But we must take the opportunity now.

I've been dealing myself, intimately, with some of the problems peculiar to the BLM lands. I have also hiked extensively in there myself and flown over the area. We heard earlier, I believe from Brock Evans, that we have only perhaps 5 to 10 years left in the national forests before we have not old-growth forests, but old-growth trees.

The same thing is true on BLM lands. It's perhaps more severe, more critical of a problem. I don't believe I can come back here 5 years from today and tell you that we can still do something about this problem. It may well be too late.

It was also asked earlier, I believe by Congressman Vento, whether the agency—the Forest Service he was referring to—was

acting within its sustained yield mandate with BLM. This is a particular problem. I refer you again to my written testimony where I note that the BLM timber plans themselves in southern Oregon admit that in one sustained yield unit, they are cutting eight times faster than they are growing and in another, four times faster.

This is a very serious problem. Add to this problem the fact that they are not planning on replacing this, at least at this time. They are contemplating an 80-year rotation which means that we will not have either the old-growth resource or the mature-growth resource in the future.

The policy of liquidating—and liquidating is BLM's word—liquidating this incredible resource is taking a huge toll and I would refer you to attachment 1 to my written testimony which has not Headwaters' interpretations, but BLM's own admissions of the kind of destruction to the environment that this liquidation of the old-growth timber resource is causing.

I would like to add, there's been a lot of discussion earlier today about judicial review and its purported abuses. I don't want to try to pretend that I really have to have this job and can't find another one. I know I'm a lawyer and want to stay in work, but let me make a pitch for judicial review with one particular example of a case that I now have in court on behalf of my client, Headwaters.

It's a timber sale which is located on this map, a timber sale in which, or around which, some of our members live and have very grave concerns. There is a spotted owl in there, it's the only one located in this township, the only breeding pair in this township.

It's a critical site because the BLM plans, with this timber sale, to liquidate the old-growth resource in an entire drainage to 3 percent. We went to BLM. We had meetings with them. We worked in cooperation with them. We tried to negotiate with them. We tried to find substitute volume for them. We suggested other methods of silvicultural practices. We suggested that they take the cut from other places. We made any number of different suggestions. It went nowhere.

We protested the sale and appealed. They were rejected. We offered to negotiate again with BLM on this sale before going to court, but BLM refused. We are there now in court fighting it out.

Now, what I want to make clear to you is that this is an unnecessary situation, that Headwaters and similar groups do not insist on going to court. We are not looking for a fight. We are looking for the agency to do its job properly. We are looking for a sustained yield. We are looking for the proper balance of multiple use and we don't believe it's happening.

As a last resort, the courts are necessary and the proof of that is in BLM's own monitoring reports where they verify citizens' concerns. It verifies damage done to riparian areas, violations of the Clean Water Act, and so on and so forth.

In summary, let me just make several comments of what I believe—

Mr. JONTZ. I would ask you to summarize briefly because the red light has been on for some period of time.

Mr. LEVIN. Thank you. I'll summarize in 1 minute.

I believe that we need a speeding up of BLM's inventory, just as we do with the Forest Service's, to determine what the critical eco-

logical attributes are and where they are, what needs to be protected, what doesn't need to be protected, so we can continue a viable timber economy and still protect that which needs to be protected.

I would also suggest that perhaps this critical issue of overcutting and violations of sustained yield should be looked at very carefully by this committee or even possibly by the General Accounting Office. We believe that our concerns can be verified and GAO or your subcommittee can as well.

Thank you.

[The prepared statement of Mr. Levin appears at the conclusion of the hearing.]

Mr. JONTZ. Thank you very much for your statement.

Mr. Atiyeh, if you would please proceed.

STATEMENT OF GEORGE A. ATIYEH, MINER, GATES, OR

Mr. ATIYEH. Thank you, Mr. Chairman.

My name is George Atiyeh and I'm probably the most unlikely environmentalist you're going to meet. I'm a Republican from a politically active Republican family. My uncle was the former Governor of the State of Oregon. I'm a third generation Oregonian, fourth generation from the logging and sawmilling business.

Oregon is my home and logging has basically been my roots. I have been involved in the timber industry from the logging end to the sawmilling end, and finally into the lumber brokerage end. I now operate a zinc-silver mine in the North Fork of the Santiam in the Willamette Forest.

What changed me from being an advocate of cutting down ancient forests or cutting down trees and wanting to protect certain big areas or important areas of the ancient forests has been a place called Opal Creek. Opal Creek has been significant to me because of its beauty. It is now significant to a lot of people in Oregon. It's the largest unprotected block of ancient forest left in the western Cascades.

It gets thousands of visitors every year, but at this point, it's still under imminent threat of chain saws. The Forest Service has plans for putting timber sales in there as they have for the last 20 years, they want to continue to put up timber sales. Yet they haven't put up any sales as yet.

My love for this place has pulled me into this battle and it has really cost me a lot personally. It's cost me a lot as far as my businesses. I have two businesses that are on the edge of going under because the timber industry refuses to do business with me. I've been threatened. I've had death threats. My children have been harassed. It has been a very tough situation for me living in a timber dependent community and holding a view that I think that some of the forests ought to be protected, especially the more significant spots.

Opal Creek is not as significant now that I looked at the broader picture. I have flown all over Oregon and Washington and seen the same thing happening everywhere. You have heard a lot about how much is left and everything else, I'll address that at the very end. I have seen places like Waldo Lake in the Willamette, the Middle

Santiam, Old Cascades, the Siskiyou National Forest, that are also important areas.

Another important area to me is like the northeastern corner of the State, the Snake River country where we have a National Recreation Area and where I go elk hunting. We had a fire there recently. They are going to cut down all the thermal cover and I'm going to end up losing a lot of my elk hunting habitat. The thermal cover for the elk will temporarily increase the population. Eventually, though I think we're going to have serious problems.

Those types of things are going on all over the State of Oregon and we're losing very significant resources in exchange for keeping our timber industry healthy. I really have some serious doubts whether we're keeping our timber industry healthy by keeping the market flooded with Federal timber.

What we need to do is restrict the supply, maybe not to the degree that the spotted owl injunction is going to restrict it, but it needs to be restricted. We need the prices up; it's better for the counties; it's better for the schools; and it forces businessmen to make the hard decisions about the kind of investments they are going to make in their sawmills.

Those investments—they're not going to make investments to change sawmills and make these sawmills modern as long as they can depend on cheap, old-growth timber. If they have to pay a little bit more, they're going to make more efficient mills. These changes are something that has been going on in Oregon from the very beginning.

We have had sawmills close down, start up and close down, from the first time people came and built sawmills on the banks of the Willamette River. That is not something new. Each time we do it, our industries gets stronger and the timber industry gets stronger. I don't see how flooding the market with Federal timber right now is a solution to anybody's problem.

The other thing I wanted to talk about is the fact that Oregon has been living off the interest of our forest bank account, we have been squandering the principal and we have even borrowed against the future by overcutting, especially in our national forests as well as in the private forests, and the timber industry wants us to believe that everything is OK.

In my personal opinion, I think that our forest bank account is just about bankrupt. We are very much in the same situation as the savings and loan industry right now.

I'm very concerned about the smalltowns, the timber-dependent communities in Oregon and what's going to happen to them, but I also wonder—what's going to happen to these communities once we run out of old-growth timber? I don't believe there is 50 years cutting out there. I think that is an outrageous statement. There is maybe 5 or 10 years.

To go ahead and continue to cut down the ancient forest at this rate and not leave anything for the future, or for other types of economic diversity would create a serious problem for the State of Oregon.

One last thing I want to talk about is the Forest Service itself. The Forest Service has been put in an untenable situation by the way that they have been managing. We have told them to come up

with a certain amount of timber each year, and yet, the people in resources within the Forest Service have not been able to meet those targets without violating the law, the Endangered Species Act; the National Forest Management Act; the National Environmental Policy Act; that is why when the environmental community goes to court, they win, because these laws have been violated.

It's not the fault of the people in the Forest Service, in the low end. It has become their problem, they are not the ones causing the problem. It is the mid- to high-level management in the Forest Service that is causing the problem, by forcing cuts so high in districts, that they can not be met.

The final thing I want to say is; you've heard a lot here about what is going on in Oregon, how much old growth is left, what the forests look like, the whole thing. You can wait 18 months to have a scientific study, or you can come out to Oregon, we will put you in an airplane, and will fly you over the national forests, you can see it for yourself. You don't have to believe the environmental side, you don't have to believe the timber side. Just come take a look, I think you'll see for yourself what the forest really looks like.

Thank you.

[The prepared statement of Mr. Atiyeh appears at the conclusion of the hearing.]

Mr. VENTO. Thank you. The next witness is Steve Self, the director of timber supply, Timber Association of California, Sacramento, California. Steve, welcome and please proceed.

STATEMENT OF STEVEN SELF, DIRECTOR, PUBLIC TIMBER SUPPLY, TIMBER ASSOCIATION OF CALIFORNIA

Mr. SELF. Thank you.

My name is Steven Self and I'm appearing today on behalf of the Timber Association of California. We're an association of forest landowners and forest products manufacturers in California, which is region 5 of the Forest Service. I'm a wildlife biologist and I have worked on wildlife issues for over 12 years, including specific work with the spotted owl.

During the last 15 years, there's been a significant effort to better understand the use of habitats by the northern spotted owl. Numerous studies have indicated that the owl occurs primarily in old-growth timber. However, 10 to 15 percent of the spotted owl observations in Oregon have occurred in forests that cannot be described as old growth. Other studies have found spotted owls breeding in partially harvested forests, and recently, a preliminary survey of spotted owls in second-growth redwood forests located several pairs of owls.

The Fish and Wildlife Service has drafted a proposal to list the northern spotted owl as threatened. In the draft document, the Service acknowledged the possibility of silvicultural production of spotted owl habitat. These observations raise the key question, can spotted owl habitat conditions be produced in younger managed forests? The answer to this question requires rigorous survey and monitoring of spotted owl use of managed forests.

Therefore, this year, private timber companies, the Timber Association of California, and the National Council of the Pulp and

Paper Industry for Air and Stream Improvement developed a cooperative program to survey the distribution and reproductive status of Northern Spotted Owls on private lands in northern California. These stands of timber contain little to no old-growth forests.

It is significant that over a 3-week period, we have discovered a substantial number of new spotted owl locations in our managed future forests. We begin this week to monitor these sites for pair status and associated reproductive success.

In addition to our study, two other studies of Northern Spotted Owls in managed future forests have located significant numbers of spotted owl pairs, including numerous nests with young owls. These studies are significant in that they are looking, for the first time, at spotted owl use of managed future forests. Previous studies have focused on old growth and mature forest habitats. We're very encouraged by our preliminary data from the initial surveys. Each day we are gaining valuable new data on the breadth of habitat use by spotted owls.

However, there continues to be a concern that current management plans on our national forests and harvest rates will leave no options to manage for old-growth dependent species, whether they be spotted owls or other wildlife.

Data provided by the national forests in California during the development of their land and resource management plans indicate that over 45 percent of our most productive forest lands will be managed to maintain and develop old-growth characteristics into the future. They also show that we are harvesting less than the growth.

In the broader sense, with respect to what the future holds for all forest habitats, successful forest managers must understand the ecological relationships, both temporal and spatial, that exist in a forest. Forests are dynamic and constantly changing. Timber stands are subject to external forces that affect their health and longevity, including climatic and weather variations, insects, disease, fire, windstorms, floods, and man's activities.

Timber types change in character over time. The principle of the climax forest recognizes that some species of trees modify their own habitat. They create conditions of light, moisture, and nutrient competition that make it difficult for them to reproduce themselves on that site. Species more adaptable to those conditions will replace them.

In the case of Douglas-fir forests, they typically give way to stands of hemlock and true fir species. Without some type of stand disturbance by physical influences, many of our more valuable timber stands will not maintain themselves. Through management, we can mitigate the adverse impacts of those influences, while providing the necessary modifications for timber-type maintenance.

We are learning that the spotted owl prefers to live where certain characteristics exist in a timber stand. While it has been thought for some time that these characteristics are unique to old-growth stands, recent observation and study suggest that these same characteristics can be found in timber types that do not meet the definition of old growth.

Through timber management, we may provide for the needs of the spotted owl, mitigate adverse natural forces, and provide the

necessary conditions for good timber growth. Preservation in perpetuity of tracts of timber on a given site will remove these options for that site and ultimately work a hardship on both the timber and the wildlife resource.

Thank you for the opportunity to testify.

[The prepared statement of Mr. Self appears at the conclusion of the hearing.]

Mr. VENTO. Thank you very much.

Finally on this panel is Tom Hiron, the president of Mad Creek Logging Co., Gates, Oregon.

STATEMENT OF TOM HIRON, PRESIDENT, MAD CREEK LOGGING CO., ON BEHALF OF COMMUNITIES FOR A GREAT OREGON

Mr. HIRON. Thank you, Mr. Chairman.

My name is Tom Hiron and I do own and operate Mad Creek Logging Co. in Gates. I am here representing Communities for a Great Oregon, the Yellow Ribbon Coalition, and the Oregon Project. These groups have collected more than 170,000 signatures of Oregonians favoring a stable and adequate timber supply from public lands.

I hope that you will recognize that the debate occurring in my community and in the Northwest is only an example of what is happening clear across America. The Detroit Ranger District on the Willamette National Forest where I work is an ecosystem made up of plants, animals, and people.

I'm a fourth generation Oregonian. I got my first job working in the woods in 1966. While I have been working and trying to be responsible for my family and the families of those who work for me, there have been powerful forces at work against me.

In the past few months, I've had to come face to face with Earth First and a philosophy of deep ecology. I've listened to the arrogance of spokesmen for the Oregon Natural Resources Council and the Sierra Legal Defense Fund. I've listened to their total disregard for people who live and work on the land.

The root issue remains as it has been for the last 20 years—which lands shall be managed and which lands shall be set aside. The Detroit Ranger District is a good example. Fifty-three percent of the district is set aside, 31 percent is available for timber management, and 16 percent is available for restricted timber management.

Recent spotted owl decisions have reduced the land base from 47 percent to only 14 percent. The Detroit Ranger District has had to reduce its sales from 105 million board feet last year to 11 million board feet this year. We need to get these decisions out of the courts and back into the hands of professional land managers.

There are three major purchasers of national forest timber on the district. One is 98-percent dependent and the other two are 75-percent dependent. They provide a living wage for 1,800 families and those families in turn provide the economic base for another 3,600 families.

Those families live in the Santiam canyon on that district and these wages that they are paid ripple down to the canyon and into the metropolitan areas of our State and Nation. If the preserva-

tionists are successful, we are the ones who will lose. We will lose the dignity that an honest job provides. We are the ones who will lose our homes. Our divorce rate will increase, our incidence of alcohol and drug abuse will go up, and our ability to pay taxes and be good productive citizens will be gone.

The preservationists absolutely refuse to address these issues. We must reach finality on the forest-land allocation debate. These issues must be addressed in the forest planning process, and decisions rendered through the planning process must have a chance to be implemented and the activities monitored, rather than a continual debate that never ends.

I see the planning process as endless, with preservationists continuing to attempt to reduce the number of acres available for multiple-use management on the Willamette and other national forests. If this situation does not stabilize, I and others like me, will be out of business by the end of this year.

Sixty-eight thousand industry workers stand ready to meet the challenge of providing America's and the world's forest products on into the 21st century. Given a chance, we will do so in a more environmentally sensitive manner than any other country on Earth.

Preservationists have duped a large number of Americans into believing that there are only two choices—either total destruction or total preservation. This is not true. These absolute choices deny man's basic need to be creative and utilize technology. It is time to put man back into the environmental equation. We're a vital and essential part of Earth's ecology. Working together we can and we must plan a reasonable and certain future for America.

Thank you for giving me the opportunity to testify here today, Mr. Chairman.

[The prepared statement of Mr. Hirons appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Mr. Hirons, for your testimony. I hope some of the conclusions that you state are not the reality of what happens. Is the small firm that you run, the Mad Creek Logging Company in Gates, dependent upon the forests of the Detroit Ranger District that you're talking about here? Is that the source of the timber that you mill? Do you actually do the logging?

Mr. HIRONS. Mr. Chairman, I do the logging. I employ 18 people and I work for three mills that purchase national forest timber on the Sweet Home and Detroit Ranger Districts.

Mr. VENTO. The Detroit Ranger and Sweet Home.

Mr. HIRONS. Yes.

Mr. VENTO. So, it looks like there's been some classification of wilderness. You're pointing out the total number of acreage that's impacted by this injunction; is that correct?

Mr. HIRONS. Yes, Mr. Chairman, it is correct.

Mr. VENTO. So, do you think that some of that includes these old-growth areas? Is some of it the old growth or not? Do you think some of it is old growth that you're logging there in the Detroit Ranger District?

Mr. HIRONS. I believe that the biggest percentage of the timber that we're working on in the Detroit Ranger District would be classified—according to the definitions I heard today, I'm not too sure anymore if I really know what old growth is.

Mr. VENTO. Well, it seems that when the scientists agree among themselves, they confuse us more. I don't know. But that seems to be what you're saying.

Mr. HIRONS. Let me say this. On the Detroit Ranger District, out of the total acreage there, I would estimate that probably 15 percent of that might be second growth.

Mr. VENTO. Second growth. So, part of old growth is in wilderness. You're talking about the available area now that's cut. There's no use talking about the wilderness. We're not going to cut that.

Mr. HIRONS. There's no use talking about any of that that's set aside as wilderness or roadless or stream-course protection, but the available acres for timber harvest——

Mr. VENTO. Is that a BLM area or is Forest Service?

Mr. HIRONS. That's Forest Service.

Mr. VENTO. Is some of that still under wilderness study so that it can't be cut?

Mr. HIRONS. I don't believe that it is.

Mr. VENTO. I'm just trying to get an idea of what the problem is that you're facing. I think it is possible that at one point we will exhaust that cycle and you heard the discussion about the number of years it takes to get it back.

Someone from Minnesota was here earlier and they talked about how they had made the transition. Part of that was based on technology, but part of it is also based on a lot of blood, sweat, and tears because Michigan, Wisconsin, and Minnesota, all started out with white pine. Only remnant stands of that now remain because they didn't bring it back.

So then they went to other types. They didn't really replant anything. What came in in lieu of white pine is balsam, which they didn't have any available use for at that time. And then a lot of hardwoods such as poplars and aspen. We find that those hardwoods have a higher value than some of the softwoods that they were initially cutting.

There is a great reduction in those three States in the amount of softwoods that are available. They simply are not available anymore at all. They're gone.

I think what they're talking about here is trying to preserve some of those areas in other than just remnant stands. So, I think we can get down to that and then look at a forest management plan which, after the wilderness is taken out, has a limited amount of timber in it.

We very often eliminate areas of high mineral or wood fiber production from wilderness designations. We know because we go through the designation battles. Sometimes, we keep some in, but very often it's taken out.

The idea is for sustained yield. They're really not doing that. We're going to have an 80-year cycle, but it's 200-year community of plants and animals that are present in this area.

I'm just saying there are good reasons to argue for trying to preserve or trying to have a longer cycle in that particular area.

You heard some of the ideas that Dr. Franklin expressed here today, didn't you?

Mr. HIRONS. Yes, Mr. Chairman, I did.

Mr. VENTO. Were you able to understand or follow any of that?

Mr. HIRONS. Yes, I was.

Mr. VENTO. What did you think of those ideas?

Mr. HIRONS. Let me respond by saying that I think loggers are capable of handling most any situation out there. We can adapt to any type of silvicultural system.

Mr. VENTO. What did you think about the idea of thinning?

Mr. HIRONS. I'm doing a thinning job right now in the Detroit Ranger District with 50-year-old timber that was railroad logged in the 1930's. The cut, the prescription for the cut on that is a yield of 7,000 board feet per acre.

Mr. VENTO. It's principally Douglas-fir, hemlock?

Mr. HIRONS. That is principally Douglas-fir and there is some hemlock in it.

Let me tell you that it takes many, many, many acres at that rate and it is very, very, very expensive to put sophisticated skyline systems into that size of timber and to produce any volume of any quantity.

Mr. VENTO. Well, I appreciate that. I understand that that would be the case, that while these things sound great on paper, the practical reality is the bottom line and that that makes it more expensive and it may, in fact, make you uncompetitive in terms of Canadian imports or something else, right?

Mr. HIRONS. You ask me to agree.

Mr. VENTO. Well, I think I'm asking you to agree with the conclusion that it's more expensive to do it that way.

Well, let me get on to some of the other panelists here. I'm holding up the progress of my colleagues.

Mr. Levin, I didn't have a chance to hear your testimony. I read part of it. Is the BLM taking any steps to protect any of the specific areas that you have identified?

Mr. LEVIN. Extremely little, Mr. Chairman. We find that the BLM is proposing clearcuts along, adjacent to, or across the Pacific Tress Trail, for example, immediately outside the boundary of the Wild Rogue River scenic corridor.

Because the cut is so high, they're forced to enter these critical areas and what we find is, when there is a sale that we're interested in and we would like them to harvest somewhere else, when we propose that, they say, no, we can't do that, we've got to get the cut out and there is nowhere else to go.

Mr. VENTO. Do you understand what Mr. Hirons was saying with regard to the uneconomic nature?

Mr. LEVIN. I do.

Mr. VENTO. Part of this is mandated by the Forest Service. They cut a lot of really prime timber, some maybe even being old growth in this area.

They would like to come in with something that is more selective, that asks for thinning, that takes care of some of the remnant areas, that would do less harm.

But the problem is that those types of cuts bring in less money to the Forest Service. You can't bid as high on those, can you, Mr. Hirons? They're more expensive to cut so they really are not going to be profitable to the Forest Service to offer them. Plus there is a greater demand to cut the stuff that is going to be a higher profit

for both you, the Forest Service and the county getting some money back, right?

Mr. HIRONS. Well, let me say that I believe that first entry into that second-growth stand, while it is almost prohibitively expensive, in my opinion, is good forestry and it is an investment in the future.

Mr. VENTO. I agree, but the problem is that that's harder to sell to you because they get less money back and it's tougher work. There are a lot of problems in terms of the management of those remnant areas or second-growth areas. There is great pressure on the Forest Service to provide entry into some of what we call old-growth stands or the prime timber areas, right?

Mr. HIRONS. I believe the demand is there for that old-growth product.

Mr. VENTO. That's right.

Mr. LEVIN. I'd just like to add, Mr. Congressman, that down in southwest Oregon where we are located, we have very, very severe reforestation problems due to the hot climate, hot, dry southern slopes, very steep slopes, gravelly soils. As a result of these harsh conditions, we are noting a lot of areas that BLM is entering where they are similar to reforestation failures that have been withdrawn for the next decade.

Mr. VENTO. Well, that is disappointing, but I'm certain they're under pressure from the appropriations act, from the dollar-driving policy from Congress and the administration.

I think it's important for us to recognize the fact that when you have the areas of old growth that you can't cut right up to the area boundary because they are dependent upon a gradation and the surrounding community of plants in the perimeter areas. So, cutting right up to the boundary and preserving these as remnants is obviously not workable, right, Mr. Levin? I know that your testimony pointed that out.

Mr. LEVIN. Yes, that's correct, and that's a problem that we've noted repeatedly.

Mr. VENTO. Well, I'm interested in some of the ideas that have been expressed today. I haven't time to question Mr. Atiyeh. How do you pronounce your name?

Mr. ATIYEH. Atiyeh.

Mr. VENTO. Well, I knew it when your uncle was Governor, but I forgot. I was encouraged by your testimony. We don't ever expect door step conversions in this business, but at least you can look back and say I've learned from this. It's a hard thing to do and I respect you for doing it.

Whether or not you've learned everything you should learn and whether or not everyone on this committee agrees with you, it is encouraging to see that type of conclusion and the kind of concern that you're expressing. I think that we'd all do well to be able to adjust ourselves to be able to accept information and make types of decisions based on that.

I respect that. Whether or not everyone here agrees with your conclusions, I don't know. I think I tend to, from what I've seen.

Mr. Smith.

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman.

Mr. Levin, you mentioned that you were involved in an injunctive process—

Mr. LEVIN. Excuse me, in what process? I'm sorry, I didn't hear you.

Mr. R. SMITH of Oregon. I understand that you are involved in an injunction against the Bureau of Land Management and I think that's the Wilcox Peak timber sale; is that correct?

Mr. LEVIN. That's correct.

Mr. R. SMITH of Oregon. And I understand that the owl nesting that you have identified is not on that sale, but is adjacent to it; is that correct?

Mr. LEVIN. That's correct. The spotted owl on that site is approximately 50 to 100 feet from a big clearcut unit, a stone's throw.

Mr. R. SMITH of Oregon. And I'm interested to know, at least my notes indicate, that the Wilcox Peak timber sale is not an old-growth sale, it's a second-growth sale; is that right?

Mr. LEVIN. That's not exactly correct. There is some old growth in there. They are planning to liquidate the old growth in that left fork Sardine Creek drainage from 13 percent to 3 percent. There was approximately 300 acres of old growth in there to begin with. If BLM has its way, that would be reduced to 63 acres.

Second growth—there isn't what you would call second growth. It's probably what you would call mature growth or mature growth with old-growth habitat characteristics. Stands in there range from probably 80 years to 180 years old. There's some which is older. It's basically a site which has a fire history.

Mr. R. SMITH of Oregon. Is your organization using the spotted owl to stop this timber sale for some other reason?

Mr. LEVIN. I think my best answer to that, Mr. Congressman, is that we didn't actually want to stop this timber sale at all. As I mentioned earlier, we would have preferred to avoid the adversary process on this.

There were several units in particular which were very troublesome on this sale. We thought that we could work something out with BLM to avoid this. BLM was not willing to even come to the table, let alone reach an agreement.

Mr. R. SMITH of Oregon. What's the real reason you want to stop the sale?

Mr. LEVIN. I think this is typical of a number of areas in southern Oregon. The pattern, it seems to be, a familiar one. Citizens often live where they do in southern Oregon because it's rural, because they like the woods, because they like clean water and often they use it for domestic water, as is true in the Wilcox Peak case. Often they're hunters, fishermen, we even have some loggers in our organization.

What often happens is, BLM, which by and large, owns land adjacent to these private owners, desires to clearcut right up to their backyard. What our members often try to do is to work with BLM to come up with a timber sale which is viable, that is, which will produce a volume of timber to sustain the economy, to help the O&C counties, to keep BLM in business, but which will, at the same time, address the various multiple uses which we're concerned about, the kinds of things that Mr. Franklin was talking about earlier.

We would be interested in entertaining the idea of sloppy clear-cuts in some of these places or other silvicultural alterations which would take care of everybody's interests. What we find instead is that BLM is on a one-track course and that we are not able to budge them an inch.

Mr. R. SMITH of Oregon. I see. So, the point is, you've got some other concerns, rather than the spotted owl that you're worried about.

Mr. LEVIN. That's correct. We're interested in sustained yield. We're interested in long-term site productivity and general wildlife habitat.

Mr. R. SMITH of Oregon. But you brought the suit with respect to the owl.

Mr. LEVIN. We brought suit on a number of different issues. The owl is one. It happened to have received the most attention by the press.

Mr. R. SMITH of Oregon. Right. Mr. Hiron, give me those numbers again on the Detroit Ranger District, will you, about the normal cut and what it's been reduced to. I misplaced those.

Mr. HIRON. Prior to the 1984 Wilderness Act, the cut was 119 million a year on the district. After adjustments for the Wilderness Act and a reduction in the land base, it was adjusted down to 105 million. This year, they're going to sell 11 million.

Mr. R. SMITH of Oregon. Well, the three mills that are operating on the Detroit Ranger District are not going to operate on the Detroit Ranger District obviously.

Mr. HIRON. We'll be trucking logs from as far away as—we're putting some pressure in your backyard over there, Congressman.

Mr. R. SMITH of Oregon. He's talking about 300 miles away, across the Cascade Range, Mr. Chairman, and I raise this question to point out that really, we're not just talking about the Detroit Ranger District when they have this kind of substantial reduction.

We're talking about impacts throughout the Northwest, and the Nation, but primarily even though the owl does not range in the areas of the high desert country that I represent, we are impacted just as traumatically as our people in the Willamette Valley simply because they're going to try to stay in business and they're going to reach out 300 miles for timber, as long as they can sustain it, until they go broke.

Now, we've gone through this once. We did it, as the Chairman recalls, when the timber price rolled up in the early 1980's and we changed this economy to a noninflation economy from an inflation economy. Timber prices rose to \$400 a 1,000, mills were going broke in Oregon, Washington and the Northwest. They came back on their knees and we gave them some help.

We said, OK, we're going to help you get back in business again and we gave them support to reopen, and it affected most mills around the State of Oregon and the Pacific Northwest.

So, we are unconscionably, I think, creating a very similar condition as we saw in the early 1980's when we, through arbitrary means, strangled the supply of timber, for one reason or another, forced artificially high prices. Mills would reach out trying to take care of their employees. They can't do that economically. There's a time when they either have to go broke or they have to come back

for some more support from the Congress. I doubt that the Congress is going to give them any more support.

But the ultimate result is always there. So, if you want to strangle the timber supply, you're going to force prices higher. Mills are going to shut down. They're going to reach out and they can't do it. They'll be back here trying to get some help from this Congress, which was responsible for them being in that economic position in the first place by reducing the timber availability.

Thank you, Mr. Chairman.

Mr. VENTO. Well, just for the record, Mr. Hiron, you mentioned it was 119 million board feet before the passage of the Wilderness Act in Oregon, which was when?

Mr. HIRON. 1984.

Mr. VENTO. 1984. And then in 1985, it was 105? What was it this year, in 1989?

Mr. HIRON. 105.

Mr. VENTO. And so it's down to 11 because the lands are foreclosed from sale because of the suit, is that right?

Mr. HIRON. That's correct.

Mr. VENTO. In other words, if the suit were to be backed off from or if some court decision changes it, the situation would change or be reversed. I just wanted to make it clear what the evolution had been. Maybe we can get those official figures from the Forest Service, but I'm sure yours are correct.

Mr. DeFazio.

Mr. DEFazio. Thank you, Mr. Chairman. I regret that I had to step out for an appointment, so I missed the majority of the testimony. I will read the testimony.

I came in on Mr. Hiron's remarks about thinning and I'd agree that the kind of thinning he's talking about, the very careful, selective thinning in fairly dense stands and probably steep terrain is expensive, but I think you would admit it puts your people to work and they spend quite a bit of time on an acre doing that amount of thinning.

I note that he nodded yes, for the record.

Mr. HIRON. Yes, it does put my people to work and I'm glad to have the job.

Mr. DEFazio. I guess the point is, in this mix of things that's going to lead to our future timber supply, I think it's important that we pay attention to costs, but recent studies by the State of Oregon and others show that some of these investments can have a positive cash benefit in the future just because of the enhanced value of the final harvest on the remaining timber, particularly improving not only the volume of the standing, remaining timber, but protecting it against disease, other problems, and pests, and also improving the quality of that timber.

I think we're going to be looking at more of those things because I think we're going to have to manage not only intensively, but also for different quality. I mean, you obviously can observe that through your work in all different kinds of stands and there's a very qualitative difference between the old-growth timber or the second growth that you're harvesting now in mature, or just in terms of growth rings, number of knots and limbs and those sort of things. I think you'd agree with that.

Mr. HIRONS. Yes, I would, Congressman. To respond, I guess, in addition to being a qualitative difference, there's also a quantitative difference that—if I had a calculator real quick, net 7,000 board feet per acre. The preferred alternative on the Detroit Ranger District called for a 92.5 million cut and if somebody had a calculator to figure out how many acres of thinning that would take to produce that feet, there's not that many acres on the Wilamette, let alone the Detroit Ranger District.

Mr. DEFazio. No, you're not going to replace the volume. That's volume out of that old growth that our generation won't see again, but I'm saying in terms of—I just want to make clear my position and I wanted to clarify yours that I hope you strongly support those Federal investments, even though, right now, perhaps they seem a little expensive. I think 10 or 20 or 30 years from now, the wisdom of those investments is going to be shown.

Mr. HIRONS. Yes, I think it's good forestry.

Mr. DEFazio. With that, Mr. Chairman, I'd yield back the balance of my time. I don't have any other questions.

Mr. VENTO. Mr. Jontz, did you have a question?

Mr. JONTZ. I have no questions, Mr. Chairman.

Mr. VENTO. I appreciate you coming all this distance, all of you, and waiting today. It's been good.

Those sales that you talked about on the Detroit Ranger District, the 105 million board feet that was sold this year, they make those sales in a given year, but they aren't necessarily cut in that particular year. Do you know what the sales made and the volume held, but not cut, by various bidders are?

Mr. HIRONS. I know this. The three mills in the canyon there on the Detroit Ranger District—one of them has enough volume under contract to last just past the first of the year. The other two, the two that I work for—

Mr. VENTO. So, they're current.

Mr. HIRONS. Will have all their volume under contract cut by October.

Mr. VENTO. By October. So, they won't have anything left for the 1990 fiscal year. They have 3 months of reserve. But who else has the contracts in that area? Not only these mills have the contracts. Does anyone else have the contracts?

Mr. HIRONS. There are one or two purchasers from outside of that area that have some contracts that they are logging on right now that will be finished by August or September.

Mr. VENTO. Does pretty much all of this go to those mills or does some of it go for other purposes?

Mr. HIRONS. All of the volume purchased off the national forest on the Detroit Ranger District goes to those mills locally.

Mr. VENTO. So there are some out there that still have some contracts. You don't know what they're going to do with it, but they haven't exercised those rights?

Mr. HIRONS. As far as I understand it, everything under contract out there will be cut except for the one mill that I mentioned, by the first of the year.

Mr. VENTO. Well, that's important to know. Thank you.

Are there further questions? Mr. Self, we didn't get to ask you any questions, but I think that you pretty much concentrated on

the spotted owl issue in your testimony. You basically don't agree with some of the testimony that occurred earlier with regard to spotted owl that Mr. Morrison and others gave us concerning it? Is that right?

Mr. SELF. I think that we found something that no one would have expected us to find in the number of owls that we found, that we found locations on. We don't know what those owls are doing in terms of how many pairs we have out there or what they might be doing in terms of reproduction. We plan to look at that.

Mr. VENTO. Well, I think that's really interesting.

Mr. SELF. What we found is quite different than what anyone else has found.

Mr. VENTO. One of the problems I tried to state—maybe I said it too subtly, but I hope it's understood, that there are forests of problems under the spotted owl.

Mr. SELF. I agree. I made the statement that at least in California, close to half of the land—

Mr. VENTO. I think we can work on the spotted owl here for a long time. Beyond that, there is a concern about the whole ecosystem and its biodiversity.

So, although there were some answers on the spotted owl issue in terms of young/old forests, this is only part of the answer.

Mr. SELF. We're not looking at young/old burns. We're looking in timber stands that are 80 years or less in age, all of which have been harvested. We're not looking in areas that are remnants. We're looking in areas that were managed in the past—large blocks of managed lands.

Mr. VENTO. Both private and public lands?

Mr. SELF. Private lands.

Mr. VENTO. Private lands, which tend to be more wet or more moist, lands that are a little better; is that right?

Mr. SELF. That's not necessarily true. I think on the coast that would be true—

Mr. VENTO. Well, is it generally accurate, though?

Mr. SELF. That may be.

Mr. VENTO. Generally accurate?

Mr. SELF. We don't know that.

Mr. VENTO. That's a problem when we start getting into the science. We have to start asking those types of questions.

But we do appreciate your testimony and the work that you have done. It will be part of the record and subject to our deliberation.

Have we entered into the record the court decision or the intervenor decision? We will recommend that it be made part of the record. Representative Bob Smith had requested it to be part of the record. It deals with the Portland Audubon Society, et al., Plaintiffs, on the part of the County of Jackson.

Mr. R. SMITH of Oregon. Lane County.

Mr. VENTO. Lane County, pardon me. It's part of the record.

[The information follows:]

PHILLIP D. CHADSEY
 KEVIN Q. DAVIS
 STOEL RIVES MOLEY JONES & GREY
 900 SW Fifth Avenue, Suite 2300
 Portland, OR 97204-1268
 Telephone: (503) 224-3380

Of Attorneys for Defendants-Intervenor
 Association of O & C Counties and
 Benton County

UNITED STATES DISTRICT COURT
 DISTRICT OF OREGON

PORTLAND AUDUBON SOCIETY, et al.	)	
	)	
Plaintiffs,	)	Civil No. 87-1160-FR
	)	
v.	)	
	)	
DONALD HOUEL, in his official	)	AMENDED AFFIDAVIT OF
capacity as Secretary, United	)	STEVE CORNACCHIA
States Department of Interior,	)	
	)	
Defendant,	)	
	)	
and	)	
	)	
NORTHWEST FOREST RESOURCE	)	
COUNCIL, et al.,	)	
	)	
Defendants-Intervenor.	)	

STATE OF OREGON)
) ss.
 COUNTY OF LANE)

1. My name is Steve Cornacchia. I am the chairman of
 the Lane County Board of Commissioners. I make this affidavit

Page

1 - AMENDED AFFIDAVIT OF STEVE CORNACCHIA

STOEL RIVES MOLEY JONES & GREY

900 SW Fifth Avenue, Suite 2300
 Portland, OR 97204-1268
 (503) 224-3380

1 on behalf of a majority of the Lane County Board of Com-
 2 missioners and the people of Lane County.

3 2. I am a 1980 graduate of the University of Oregon
 4 Law School in Eugene. I am a member of the Oregon State Bar and
 5 was a practicing attorney until 1986. I am a lifelong resident
 6 of Lane County, Oregon.

7 3. I am familiar with the budget for Lane County and
 8 with community programs and services which Lane County supports.
 9 I am also familiar with revenue sources for Lane County. I am
 10 also familiar with the dependence of the private sector economy
 11 on the timber industry in Lane County, particularly local
 12 economies in communities outside of the Eugene/Springfield
 13 metropolitan area.

14 4. I make this affidavit from my own personal
 15 knowledge after review of governmental records kept by Lane
 16 County in the regular course of its business.

17 5. Lane County receives 15.27 percent of each revenue
 18 sharing dollar which is distributed to the O & C Counties under
 19 the O & C Act. Distributions to Lane County have been a crucial
 20 source of revenue for Lane County for many years and are still
 21 crucial today. Distributions to Lane County since 1977 are as
 22 follows:

23 1977: \$10.19 million	1983: \$ 7.21 million
24 1978: \$13.18 million	1984: \$10.08 million
1979: \$14.78 million	1985: \$ 9.33 million
25 1980: \$14.90 million	1986: \$10.97 million
1981: \$14.81 million	1987: \$10.45 million
26 1982: \$ 6.00 million	1988: \$16.62 million

Page

2 - AMENDED AFFIDAVIT OF STEVE CORNACCHIA

STEVE RIVERA, RILEY KIMBLE, GREY

NOTAR PUBLIC
 1000 N. KATHA AVENUE, PORTLAND, OREGON 97228-1000
 (503) 224-1000

1 It is my understanding that the extraordinarily high distribu-
 2 tion level for fiscal year 1988 was the result of the harvest of
 3 timber sales made in prior years, including some sales made as
 4 long ago as 1979.

5 6. Continuation of responsible harvest of old growth
 6 timber according to principles of sustained yield forestry is
 7 critical. Commercial timber is in short supply, and lack of
 8 timber has and will result in mill closures and unemployment.
 9 The detrimental impact in the private sector has an immediate
 10 impact on Lane County by increasing the demand upon community
 11 services provided by the County. During periods of downturn in
 12 the timber industry, for example, Lane County has experienced
 13 increased demands on programs which provide emergency shelters,
 14 health care such as prenatal checkups, maternity and child
 15 health care, immunizations, and food supplementation programs.
 16 Such programs are presently operating at capacity and, in some
 17 cases, people are being turned away. Continuation of the
 18 injunction on old-growth timber harvest will increase the demand
 19 on County services and exacerbate the problems Lane County is
 20 experiencing in meeting demands on these services.

21 7. The decrease in harvest from a continuation of the
 22 injunction will cause a direct reduction in revenue to Lane
 23 County from O & C Act distributions. The delay between can-
 24 celled sales and impact on O & C Act distributions is approxi-
 25 mately six months to one year. Based on figures given to me
 26 from the BLM of lost sales in FY 1988 of 162 mmBf, FY 1989 of

Page

3 - AMENDED AFFIDAVIT OF STEVE CORNACCHIA

STEVE CORNACCHIA, ATTORNEY

NOTED AND FILED WITH THE CLERK OF THE DISTRICT COURT OF THE
 COUNTY OF LANE, OREGON, ON MAY 1, 1989.
 CLERK OF DISTRICT COURT

337 mmbf and FY 1990 of 333 mmbf, and a average sale value of \$199 per mbf, I calculate a total loss of revenues to Lane County over three years (1989-91) of \$12,397,750, or an average loss of nearly \$4.2 million in each year.

8. Loss of direct O & C Act revenues are not the only anticipated loss of revenue if the injunction is continued. One of the first items of expense that unemployed property owners avoid paying is property taxes. Out of necessity, the unemployed utilize their limited resources to pay for more immediate needs such as food, shelter, fuel and clothing. The County ultimately receives payment for taxes owing, but it is usually after a substantial time has passed, in some cases as long as seven years. Property taxes are the second largest source of funding for Lane County's discretionary budget described below.

9. Based on figures given to me from the BLM of timber sales in FY 1988 of 1,014 mmbf and (if the requested injunction is granted) of timber sales of FY 1989 of 839 mmbf and FY 1990 of 843 mmbf, I calculate O & C Act revenues to Lane County of \$15.41 million, \$12.75 million and \$12.81 million, for an average of \$13.59 per year in each of three years (1989-91).

10. The average O & C Act revenues over the next three years under the requested injunction would be less than the O & C Act revenues in 1979, 1980 and 1981. In 1982, Lane County suffered a virtual collapse of O & C Act revenues. As a direct result of the collapse in O & C Act revenues in 1982 and

Page

1 1983, Lane County has suffered long term harm which has not yet
 2 been remedied. For example, prior to 1982, Lane County had
 3 approximately 2000 employees. As a result of the loss of O & C
 4 Act revenues, the County was forced to reduce its employee work
 5 force to approximately 950. In the years since 1982, Lane
 6 County has been able to increase its governmental work force to
 7 about 1200 employees, still 40 percent below the pre-1982
 8 levels. The cuts in employees were virtually across the board
 9 and are indicative of the degree of cuts made in services
 10 generally. The extent to which County employee numbers have
 11 recovered is indicative of the recovery of County services
 12 generally. The level of services is better than it has been
 13 since 1982, but still substantially below pre-1982 levels.

14 11. Comparisons between O & C Act revenues under the
 15 requested injunction and historic revenue levels must take into
 16 account the affects of inflation. Assuming an average inflation
 17 rate of 5.5 percent in each year since 1981, a comparison of
 18 1989-91 revenues with 1981 revenues would require discounting to
 19 equate the actual purchasing power to Lane County from the
 20 revenues. Discounted for inflation to 1981 values, the revenues
 21 calculated above in paragraph 9 to Lane County under the re-
 22 quested injunction would be approximately \$10.0 million for
 23 1989, \$7.9 million for 1990 and \$7.5 million for 1991. These
 24 numbers provide a more accurate basis for comparison, and they
 25 approach the depression level of revenues of 1982 and 1983.
 26

Page

5 - AMENDED AFFIDAVIT OF STEVE CORNACCHIA

STOCK & ASSOCIATES, P.C.

NOTICE: THIS DOCUMENT IS NOT VALID UNLESS SIGNED BY THE
 JUDGE OR CLERK OF THE COURT.

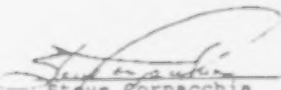
12. If the injunction is continued, Lane County will be unable to continue its recovery from the depression years of this decade. The impacts of an annual loss of \$4.2 million in revenues is best illustrated by examples from the Lane County 1989-90 budget. Proposed discretionary budget expenditures for 1989-90 are over \$29.5 million. All of the O & C Act revenues go towards programs covered in the discretionary budget. A loss of \$4.2 million in revenue would require reductions in services and personnel levels for each of the programs covered in this budget. Some programs cannot be cut back without total chaos, and therefore other programs would be cut back substantially more than others or eliminated altogether.

13. The discretionary budget, which is supported by O & C Act revenues, contains essential County services. For example, public safety and law enforcement is almost wholly supported by the discretionary budget. This includes the cost of providing jails and other corrections facilities, sheriff's patrols, funding for the District Attorneys office and corrections programs for juveniles. Cutbacks in any of these programs would have serious consequences for public safety, particularly in rural areas where law enforcement at present levels is barely able to keep pace with drug traffickers, marijuana growers and methamphetamine laboratory operators. A return to the lawless conditions of a few years ago would be the likely result.

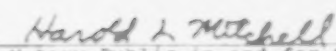
14. The discretionary budget also includes the following representative programs, all of which would suffer sub-

Page

1 On behalf of these people, and all of the people of Lane County,
 2 I oppose the imposition of the injunction requested in this
 3 case.

4
 5 
 6 Steve Cornacchia
 7 Chairman, Lane County Board
 of Commissioners

8 Subscribed and sworn to before me this 22 day of
 9 February, 1989.

10 
 11 Notary Public in and for the
 12 State of Oregon
 13 My Commission Expires: May 9, 1989

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 Page

Mr. VENTO. Any other materials for the record? No other comments?

[No response.]

Mr. VENTO. Gentlemen, thank you for your testimony. The meeting stands adjourned until Thursday, at 10 a.m. when we will hear from the Forest Service.

[Whereupon, at 6:10 p.m., the subcommittees were adjourned, subject to the call of the Chair.]

[Material submitted for inclusion in the record follows:]

STATEMENT OF THE HON. JOLENE UNSOELD (WA)
BEFORE THE JOINT HEARING OF THE
COMMITTEE ON AGRICULTURE
SUBCOMMITTEE ON FORESTS, FAMILY FARMS AND ENERGY
AND THE
COMMITTEE ON INTERIOR
SUBCOMMITTEE ON PARKS AND PUBLIC LANDS

JUNE 20, 1989

Mr. Chairman, I am grateful for the opportunity to testify before this joint hearing of the two committees with the most direct interest in the raging controversy over the management of our remaining old growth forests. I trust the hearings today and Thursday will help to shed some light on long-term solutions to an issue that has often proved too hot to handle.

As the new Member of Congress from southwest Washington, I represent one of the most beautiful districts in the country. The evergreen forests that dominate our scenery are also a renewable resource that provides essential commodities and livelihoods for thousands of workers, their families and their communities.

Over the past several months, I have been working closely with representatives from the environmental community, labor and the forest products industry in an effort to develop common ground on this contentious issue. Very recently we found that common ground. Even with mills shutting down because of the log shortage, timber industry representatives and environmentalists agreed that it was important to focus on the long-term (10-30 years) management for sustainable forest resources. They are committed to:

1. Providing certainty of timber supply and community stability; and
2. Protecting wildlife habitat, water quality, recreational opportunities, and other non-commodity values.

It is my strong belief that resolution of disputes involving these often conflicting priorities should, to the extent possible, be based on consensus building processes and not on litigation or legislative slight of hand. Additionally, I believe new forestry practices and long-term solutions should be emphasized over quick fixes that may only aggravate future conflicts.

To sustain a competitive forest products industry in the Northwest, there must be an assured supply of timber from our National Forests. Those who rely on federal timber are understandably frustrated and concerned about the ever shrinking harvest levels on National Forests. I would propose that we establish a policy of assuring the public timber base by replacing every acre removed from the base with another acre dedicated primarily to timber production. I will soon introduce such legislation.

In the Northwest we are in the midst of an unprecedented log shortage. But it's a case of famine in the midst of plenty. Dozens of mills have shut down because of the shortage while billions of board feet of unprocessed logs are being exported to Japan, Korea and China. In Washington State, more than half of the timber harvested from all lands is exported without any processing whatsoever. When we export logs, we export jobs in the forest products industry.

In essence, we have been relegated to the role of colony -- exporting relatively low value raw materials and importing high value manufactured products -- even though we have the best timber and most efficient mills in the world. We are in this unenviable position because of unfair trade practices of other countries and because the allocation of our scarce timber resource is just plain dumb. We need to develop better trade and resource practices to ensure that we get more economic benefit from the timber we harvest.

Preserving ecological diversity and important habitat within National Forests is becoming increasingly important as we come to the end of the harvestable old growth. There is no question that withdrawals from the federal timber base for Wilderness designations and wildlife protection have contributed to the timber shortage in the Northwest. On the Olympic National Forest, for example, timber harvest could be all but eliminated because of efforts to save the Northern Spotted Owl.

While we need to find ways to maintain harvest levels in the short and long term, it would be a mistake to think that the solution is in rolling back Wilderness designations or rolling over the Endangered Species Act.

The battle over old growth has so far been played out in the courts and media. This approach has increased the adversarial nature of the dispute and made it difficult to find common ground and sensible long term solutions.

My view is that we cannot afford to make an either/or decision on the old growth issue. Instead we need to find ways to accommodate both the legitimate needs of the industry and the world's demand for building materials and fiber, along with the importance of preserving ecological diversity. It won't be easy, but we need to build exploratory processes which help build consensus and accommodation wherever possible.

Finally, we must avoid the temptation for "quick fixes" that may get the monkey off our back for a while, but puts a gorilla on the backs of those who come after us. The good thing about a crisis is that it forces leaders to focus on the problem. We should not lose this opportunity to put sound, long-term reforms into place.

One of the most intriguing approaches that I've heard is that espoused by Dr. Jerry Franklin of the Forest Service. He is chief plant ecologist for the Forest Service Pacific Northwest Research Station.

and is the Bloedel professor of ecosystem analysis in the College of Forest Resources at the University of Washington.

Dr. Franklin's "New Forestry" seems to provide the ideal blend of commodity production and ecosystem protection by moving away from division of the forest into single use categories. Instead, he would allow the removal of timber, but would leave standing live and dead trees to provide habitat for wildlife and, eventually, organic debris that would enrich the soil. He would plan for a diversity of tree species and encourage a range of age classes, similar to that which would occur naturally.

Part of the funding being recommended for Spotted Owl research and intensification of the timber sale program should be devoted to research and development of new forestry initiatives like that proposed by Dr. Franklin. Only through such research and development of can we find the creative solutions necessary to sustain a healthy forest products and old growth values.

Thank you, Mr. Chairman, for the opportunity to testify. It is my hope that hearings such as this will help to identify the long-term solutions and accommodations necessary to make best use of our precious timber resource. With this testimony I would like to submit an article by Dr. Franklin on new forestry practices and a political cartoon by David Horsey which appeared in the Seattle Post-Intelligencer in March.

(Attachments follow:)

The Register-Guard

Editorials/2B
Business/5B

COMMENTARY B

Eugene, Oregon, Sunday, June 18, 1969

'New forestry' better way to cut up the pie

Alternative logging methods offer compromise

EDITOR'S NOTE: Jerry Franklin was recently described by The New York Times as "the most important figure in the new forestry movement." He spoke at the Oregon Forestry Conference in Eugene in February 1969. The following is a transcript of his address. Jerry Franklin is a graduate of Oregon State University and is currently a research scientist at the U.S. Forest Service, Pacific Northwest Research Station, and is the immediate past president of the Oregon Forestry Association.

By JERRY FRANKLIN

THE CURRENT DEBATE OVER THE future of the remaining old growth forests is a complex one. It is not simply a matter of whether or not we should log, but of how we should log, and what we should do with the land after we have logged.

FORESTRY

Today's forestry is a complex business. It is not simply a matter of cutting down trees and selling the wood. It is a business that involves a great deal of planning and management. The old forestry was a simple business. It was a business that was based on the idea of cutting down trees and selling the wood. The new forestry is a business that is based on the idea of managing a forest for the long term. It is a business that is based on the idea of cutting down trees and selling the wood, but it is also a business that is based on the idea of managing a forest for the long term.

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"dividing up the pie" — deciding how many acres should be devoted to commodity production and how many to recreation, timber, and wildlife. The old forestry was a business that was based on the idea of cutting down trees and selling the wood. The new forestry is a business that is based on the idea of managing a forest for the long term. It is a business that is based on the idea of cutting down trees and selling the wood, but it is also a business that is based on the idea of managing a forest for the long term.

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There is FORESTRY I, Page 48

"regeneration" but forest following cutting practices, such as selective, clearcutting and shelterwood, which are based on the idea of cutting down trees and selling the wood. The new forestry is a business that is based on the idea of managing a forest for the long term. It is a business that is based on the idea of cutting down trees and selling the wood, but it is also a business that is based on the idea of managing a forest for the long term.

Such knowledge can be the basis for a timber and wildlife forestry that increases the productivity of the forest. The new forestry is a business that is based on the idea of managing a forest for the long term. It is a business that is based on the idea of cutting down trees and selling the wood, but it is also a business that is based on the idea of managing a forest for the long term.

Landscaping ecology reveals relationships between the level of river drainage. Problems, such as "tragedy" of forest at the level of river drainage. The new forestry is a business that is based on the idea of managing a forest for the long term. It is a business that is based on the idea of cutting down trees and selling the wood, but it is also a business that is based on the idea of managing a forest for the long term.

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"QUICK! LOOK OVER THERE! IT'S THAT DANG SPOTTED OWL THAT MADE ME CLOSE YOUR MILL!"



THE WILDERNESS SOCIETY

TESTIMONY OF GEORGE T. FRAMPTON, JR., PRESIDENT OF THE WILDERNESS SOCIETY, BEFORE THE JOINT HEARING OF THE U.S. HOUSE OF REPRESENTATIVES, INTERIOR SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS AND THE AGRICULTURE SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY, ON OLD-GROWTH FORESTS IN THE PACIFIC NORTHWEST, JUNE 20, 1989.

Our ancient forests are rapidly diminishing. To put this into a global perspective, 15 percent of the Amazon rain forests have been liquidated. As serious as this loss is, it pales beside the loss of 87 percent of western Oregon and Washington's ancient forests.

Mr. Chairman, members of the subcommittees, I am George T. Frampton, Jr., president of The Wilderness Society. Founded in 1935, The Society is dedicated to the protection and wise management of our nation's public lands. In the silver anniversary year of the Wilderness Act our membership continues to grow, and now exceeds 300,000.

I appreciate the opportunity to testify on the issue of ancient forests in the Pacific Northwest. Also known as "old-growth," these forests are the finest coniferous forests in the world. Once considered by some as biological deserts, ancient forests today are recognized as a rich source of biological diversity. Over 200 species of fish and wildlife are found in old-growth forests, several thousand types of plants, and an untold

1400 EYE STREET, N.W., WASHINGTON, D.C. 20005

(202) 842-3400

number of species of microorganisms. In a freely operating old-growth ecosystem, each of these plays an integral role and fills a particular niche in sustaining and perpetuating the biological tapestry of the ancient forest.

But that tapestry is rapidly unravelling. While some would have us believe that all is well on the national forests of the Pacific Northwest and that ancient forests remain virtually inexhaustible, the facts tell us otherwise.

I would like to focus on two myths that appear to be dominating the debate in the northwest -- first, that there is plenty of old-growth left and already protected, and second, the alleged timber supply crisis in the Pacific Northwest.

The Forest Service and the timber industry would have us believe that there is still a large supply of old-growth forest. Both point to the old-growth estimates contained in the draft forest plans to backup this assertion. However, these estimates are fundamentally flawed. Recognizing the need for basic and credible information concerning existing acreage of ancient forest, The Wilderness Society is in the process of completing its own inventory of old growth in the Pacific Northwest. Our analysis is using existing Forest Service data and updating it through the use of current aerial-photos. Contrary to industry assertions, we did not use an unnecessarily restrictive definition of old growth. Rather, we used the ecologically-based definition developed by Forest Service research scientists. You will hear more about this effort from a later panel.

The results are in for six of the 12 national forests we are examining. There is a large discrepancy between our figures and the Forest Service's. On these six forests, the Forest Service estimated there are 2.5 million acres of old growth. Based on our inventory, we estimate that only 1.1 million acres of ancient forest still remain on the six forests, 55 percent less than the Forest Service estimate.

Based on our analysis, overall, we estimate that 2.4 million acres of ancient forest remain on all ownerships in western Oregon and Washington -- about 12 percent of the original endowment of 19 million acres of ancient forest that once covered the region. This amount includes approximately 800,000 acres of old growth in national parks, wilderness areas, research natural areas, and state parks. Other researchers, such as the Society of American Foresters, have also developed estimates of historical and extant old-growth acreage. While we believe these estimates of remaining old growth are high, they also clearly show that ancient forests have been dramatically reduced.

We are presently conducting an inventory of the remaining six "westside" forests, including the three national forests in northwest California. While interim estimates for California are unavailable, the California Department of Forestry estimates that old-growth forests have been reduced there by as much as 80 percent.

Nonetheless, the Forest Service fails to publicly concede that their estimate of six million acres of extant old growth is greatly exaggerated. First, the information used by

the Forest Service to prepare its old-growth inventory in the forest management plans required by the National Forest Management Act of 1976 was out of date and failed to take into account recent record cutting. Second, each of the plans used a different definition of old growth, all of which combine mature sawtimber and true old growth into a single, all-inclusive category. Combining mature and old-growth forests obscures the rarity of this irreplaceable resource. The Forest Service chose this approach despite the fact that agency scientists had developed a comprehensive definition of old growth, which, if used, would have given a far more accurate, though much smaller figure.

Evidence of this can be found in a recent inventory conducted by the agency on the Willamette National Forest as part of the preparation of the final forest management plan for the forest. The draft plan said there were 640,000 acres of old growth on the forest. According to this recent inventory, the agency now estimates that as little as 411,000 acres of old growth still exist, a 36 percent reduction. Our own estimates of old growth on the Willamette is 300,000 acres, which suggests the new Forest Service estimate remains overly optimistic. Nonetheless, the Willamette National Forest case clearly illustrates the glaring inadequacy of the agency's original estimates.

In 1989, Congress appropriated \$500,000 to the Forest Service to accelerate its new old-growth inventory work in the northwest. The results of this effort have been disappointing, at best. Little has been accomplished by the Forest Service on this urgent project. The agency needs to conduct and complete an up-to-date,

scientifically-valid inventory of old-growth forests in the northwest. It is imperative this inventory include an estimate of old-growth forests based on an ecologically-sound definition, one that precludes the agency from lumping together different age classes of timber.

The fact of the matter is that our ancient forests are rapidly diminishing. To put this into a global perspective, approximately 15 percent of the Amazon rain forests have been liquidated. As serious as this loss is, it pales beside the loss of 87 percent of western Oregon and Washington's ancient forests.

Worse, implementation of the forest management plans now being finalized would accelerate old-growth cutting, not slow it down. These plans would boost the average annual timber cut by at least 10 percent over the amount of timber cut in the past decade.

The second myth concerns the alleged timber supply crisis in the northwest. There are short-term and long-term components to this question.

In the wake of court-ordered injunctions emanating from litigation involving the northern spotted owl, a substantial amount of national forestland is off limits to logging in Oregon and Washington. Nonetheless, there is no regionwide shortage of timber. Some specific areas are anticipating shortfalls in the future. Fortunately, there are short-term opportunities to alleviate this situation.

First, despite record logging on federal lands in 1987 and 1988 in Oregon and Washington, as of the beginning of the 1989 calendar year, there was approximately 13 billion board feet of uncut timber under contract on all public lands -- state and federal. When measured against the average annual cut on public lands over the past decade, this is more than a two-year supply of timber.

Second, the Forest Service can and should immediately expedite the planning and offering of timber sales in rotation-age timber outside of spotted owl habitat and old-growth forests. The agency estimates that approximately 10 billion board feet of timber is available over the next three years from areas outside spotted owl habitat. Yet, the agency has failed to come to grips with reality and has been unswerving in its drive to target old-growth forests and spotted owl habitat for cutting. This has clearly exacerbated the short-term supply situation and has unnecessarily disrupted the entire timber program in the northwest.

Third, there is close to 300 million board feet of commercial thinning which could be made available this year and into the future.

Finally, in response to a court order, the Forest Service and the U.S. Fish and Wildlife Service are conducting an informal forest-by-forest conferencing process. An important part of this process is the review of all timber sales planned over the next 12 calendar months, the purpose being to determine which timber sales may proceed and which must remain on hold pending the final outcome of the spotted owl listing.

process. While we will closely monitor this review, we believe that some relief may be secured through this process. The forest-by-forest review is scheduled to be completed within three months.

In the long run, however, one must recognize that timber production in the northwest must be reduced to sustainable levels. More timber has been cut in the northwest in recent years than ever before. On average, over the past decade, 6.7 billion board feet of timber have been cut on all public lands in Oregon and Washington. Recently, the annual timber cut on all public lands has increased to over 8 billion board feet. Concurrently, the volume of logs exported has skyrocketed. In just one year, 1987 to 1988, raw-log exports soared to over 4 billion board feet, an increase of more than 1 billion board feet from the previous year. At this level, one in every four logs cut in the northwest is shipped overseas without passing through a domestic mill. This has placed increased pressure on the Forest Service to increase cutting on the national forests.

Furthermore, a strong domestic market and a booming log export market have pushed demand for timber well in excess of levels that are sustainable. Private industrial timberland owners have not been able to increase timber cut levels, and publicly-owned forests are already selling timber at levels that are at or above their sustainable cut. Clearly, the answer is not to further increase sale levels on the national forests, but to bring timber production in the region down to a sustainable level.

We envision two possible scenarios facing the Pacific Northwest. One assumes cutting levels will remain at current record levels for 45 years. The second scenario assumes that we decrease logging on the national forests by 25 percent immediately -- enough, we believe, to save most of the remaining ecologically-significant old growth. According to an analysis by The Wilderness Society, if logging on the national forests remains at the current record levels, timber industry employment in Oregon and Washington will be cut in half, from about 109,000 down to 50,000 by the end of 45 years. In the second scenario, when we preserve ecologically-significant old growth, only 2,300 additional jobs will be lost.

So here is the choice. Forty years from now we can have a leaner, more competitive timber industry in the region with 50 percent fewer workers, and no ancient forests outside a few scattered wilderness areas and parks. Or, we can have a leaner, more competitive timber industry in the region employing 50 percent fewer workers and still have two million acres of old growth to enrich the Pacific Northwest.

The time to start thinking about this choice is now. We think preserving what's left of the ancient forests of the Pacific Northwest is in the best interest of the region, both ecologically and economically. The old-growth forests help support a diversified economy, one that includes tourism, recreation, hunting, and sport and commercial fishing. The people of the northwest are proud of their magnificent natural heritage -- their forests, rivers, mountains, and scenic beauty. The question is how much of it must be lost before we make the inevitable change to a second-growth economy?

There are strategies for ameliorating the long-term job impacts of saving the ancient forests.

First, concentrate timber management on the very best lands. Many of these lands are the so-called private non-industrial lands, which are currently under utilized and hold substantial capacity for adding to current timber supply. We need to provide incentives to bring more of these lands into production.

Second, the Forest Service needs to redirect its timber program outside of ancient forests and spotted owl habitat and vigorously plan for the transition to a second-growth economy.

Third, we need to do more with the amount of timber we are currently cutting. We need to generate more value-added products within the region.

Fourth, we need to restrain log exports and prohibit so-called "third-party" substitutions of federal timber in the log export market. At present, we are not only exporting raw logs, we are exporting jobs as well. What we need to be exporting are finished products, not raw materials.

Fifth, promote the region's ancient forests and natural attractions to stimulate and sustain recreation, tourism, and the sport and commercial fishing industries.

The Wilderness Society believes the last remaining ancient forests of the Pacific Northwest must be preserved for their irreplaceable ecological and economic values. Increasingly, there is agreement that some must be saved. The question is how much. If we are to make a wise choice about the future, we need to establish a rational and constructive dialogue. To characterize the debate as jobs versus owls, environmentalists versus loggers, obstructionism versus growth and prosperity are, quite frankly, ridiculous characterizations.

The Wilderness Society is committed to participating in this transition. We will continue to conduct credible research. We are committed to completing our scientifically-based old-growth inventory, and we are committed to preserving the ecological and biological imperatives of the ancient forests. These forests are not only the finest coniferous forests in the world, they are integral to the very character of the Pacific Northwest and immeasurably contribute to the quality of life in the region.



Working for the Nature of Tomorrow

NATIONAL WILDLIFE FEDERATION

1400 Sixteenth Street, N.W., Washington, D.C. 20036-2266 (202) 797-6800

STATEMENT OF
JAY D. HAIR
PRESIDENT OF THE
NATIONAL WILDLIFE FEDERATION
TO THE
HOUSE COMMITTEE ON AGRICULTURE,
SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY
AND THE
HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
SUBCOMMITTEE ON PUBLIC LANDS AND NATIONAL PARKS
OVERSIGHT HEARINGS ON
OLD GROWTH FORESTS

JUNE 20, 1989

Mr. Chairman, my name is Jay D. Hair, and I am President of the National Wildlife Federation (NWF). NWF appreciates the opportunity to present our concerns regarding the protection of ancient forests.

The National Wildlife Federation is the nation's largest conservation/education organization, with over 5.8 million members and supporters in 51 states and territories. We have a deep interest in the proper management of our nation's ancient forests. We are concerned because these forests contain distinctive fish and wildlife habitat, and therefore sustain populations of plants and animals that are found only in association with ancient forest ecological communities.

NWF is concerned about the protection of forests and associated habitat world-wide. Recently, considerable attention has been focused on the issue of tropical deforestation, particularly in the Amazon basin of Brazil. People worldwide are realizing that our natural ecosystems are deteriorating and the resulting loss of natural diversity may threaten the well-being of every resident of this planet. Interacting communities of plants and animals provide countless indispensable services, from the production of food, to the control of erosion, and the moderation of global climate.

The world's forests, for example, are a rich and largely unexplored source of medicines. The National Cancer Institute has made progress developing anticancer drugs from plants such as yew trees and mayapples found in temperate forests. Many potential medicines from plants, animals, and micro-organisms await discovery. Unless we chose to protect the biological diversity of natural forest ecosystems, we will eliminate new sources of food, medicines, and energy even before they are discovered.

Moreover, the conservation of the Earth's natural diversity and functioning ecosystems is essential for the protection of the global environment. Forests and other ecosystems help maintain the chemical composition of the atmosphere. New information regarding the part tropical forests play in controlling the global climate has generated reactions from U.S. citizens and others wishing to end the destructive clearing of these forests.

As our understanding and concerns regarding the greenhouse effect have grown, it has become increasingly apparent that the highly productive forests of the Amazon play a vital role in the cycling of water and carbon dioxide (a greenhouse gas) in the atmosphere. Unusually severe weather patterns and harsh droughts recently have reminded us how

dependent we are on favorable climatic conditions for our survival on this planet. The destruction of natural forests and the air pollution we generate are contributing to a global experiment in atmospheric chemistry and climatology we neither fully comprehend nor control.

Currently, scientists estimate that perhaps 40 percent of all the world's tropical rainforests have already been logged, and some 15 percent of the Amazon rainforest has been destroyed. The National Wildlife Federation is working to halt this deforestation, and to help the citizens and governments of developing countries find ways to manage their forests in a sustainable fashion. Although the issues are complex, efforts to cooperate with these countries are yielding encouraging results. On April 6 of this year, for example, the President of Brazil announced a ban on the exports of raw timber from the forests of his country.

Even as the Brazilian government is reacting to international concerns regarding the destruction of the Amazon rainforest, our nation is rapidly eliminating the last of our ancient forests. This is an irony not lost on our South American neighbors, who respond to our efforts to reform their forest management practices, with blunt suggestions that we are preaching a double standard for our hemisphere.

The North American ancient forest stretches in an arc from the northern tip of the Alaska panhandle nearly to San Francisco, and has been undisturbed by man since the last ice age almost eleven thousand years ago. These forests are dominated by large conifers ranging from 250 to over 1,000 years old. Twenty-five species of conifer can be found, in addition to numerous hardwood species, but Douglas fir generally predominates in western Oregon and Washington, and ponderosa pine east of the Cascade Mountains, while the largest tree of all, the coast redwood, is dominant in northern California.

Although varying in species composition, old growth forests share three common characteristics. As explained in the book, Secrets of the Old Growth Forest, by David Kelly and Gary Braasch, these are:

Large living trees and a multi-layered canopy. Old and young trees grow together in a mixture of species. The large trees, two hundred feet tall or more, have wind-damaged tops and relatively few large branches, with a thick growth of mosses and lichen harboring many insects, birds, and small mammals. These huge trunks often survive fires,

for they are reservoirs holding thousands of gallons of water protected by thick bark. The uneven canopy is efficient at trapping moisture even from thin fog during drier seasons. Bacteria living on the leaves of certain lichens capture nitrogen, essential for plant growth, from the atmosphere.

Large standing snags. Standing dead trees (snags) may stay erect for over two hundred years. As their branches slough off, sunlight is able to reach the forest floor, allowing species that require light, such as Douglas fir, to germinate. Insects and woodpeckers open up the dead wood, providing habitat for many other species. In turn, these become food for larger predators such as the northern spotted owl, marten, and black bear.

Large down trees. Logs, fifty tons per acre or more in Douglas fir stands, crisscross the forest floor, helping to hold steep soils in place. As they decay over a period of two hundred to five hundred years, dozens of species of insects, birds, and mammals use them for shelter or food. All this activity helps raise the concentrations of

nutrients like phosphorus and nitrogen in the rotting wood, and the rootlets of nearby live trees tap them for food. These fallen trees also lie in random patterns in streams, and provide nutrients and habitat for a wide variety of bacteria, insects and fish.

Ancient forests are the richest, biologically and most complex ecologically of the forests in the Pacific Northwest. At least 118 vertebrate species find their primary habitat in ancient forests, more than in any other forest stage. Forty-one of these species find their primary nesting, breeding, or foraging grounds nowhere else. Often this is because they require some combination of these three old growth characteristics that are available only in ancient forests. The list of species whose dependence on old growth forests is most obvious includes the: bald eagle, marten, fisher, Sitka blacktailed deer, northern goshawk, northern spotted owl, marbled murrelet, and Pacific giant salamander.

Maintaining the long-term productivity of old growth and other forests requires the protection of certain basic properties of these ecosystems. Two such properties are stability, or the tendency to persist in the face of environmental variation such as climatic

change, and resilience, the ability to recover following disruptive changes such as fire, windstorm, or logging. If we are to maintain the long-term productivity of our forests, we must protect both their stability and resilience.

The stability and resilience of a forest ecosystem are determined -- in large part -- by the biological diversity of that forest. This diversity can be measured at many different levels, including landscape variability, species composition, and the genetic variations found among individuals of a given plant or animal species. The complex interactions of these variables contribute to the healthy functioning of the environment and provide redundancy within ecosystems, providing both stability and resilience in the face of changing conditions.

Natural old growth forests serve as sources of species and genetic diversity, and as model sustainable systems that can be studied for insights into how to treat managed forests. Current forest management practices, on the other hand, lead to the loss of biological diversity within forests. For example, while natural forests may contain numerous species of unevenly-aged trees, both evergreen and deciduous, managed forests often contain only one or two even-aged species of

trees. This ecosystem "simplification" diminishes the stability and resilience of these forests, and thus may impair their long-term productivity for a wide range of forest products: water, fish, wildlife, soils, recreation, scenery, and even wood fiber.

The significance of this loss of diversity, stability and resilience takes on added dimensions in light of predicted climatic changes due to the greenhouse effect. Established ancient forests will prove much more resistant to adverse effects in the face of climatic change than will plantations. The natural forests will also serve as the source of genetic diversity to provide trees capable of tolerating the warmer, drier climate that current models of global warming have predicted for the region.

We must bear in mind that 80 percent of the Northwest's forests already have been altered by human activities, and 85 to 90 percent of the original old growth forests are gone. The U.S. Forest Service and Bureau of Land Management have so far failed to assure that sufficient ancient forests will be protected to maintain their diversity and sustain their many values.

We cannot maintain this double standard for the management of global forest resources. The United States is not struggling with the

pressing socio-economic and demographic factors that are driving the destruction of the Amazonian forests. We do not have to clear our ancient forests to find homes for large populations of landless people, and the development of our economy is not dependent on the exploitation of these dwindling old growth forest resources. It is hypocrisy of the highest order to expect the Brazilians and other developing peoples to respect our admonitions to manage their natural resources wisely when we are unwilling to halt the destruction of much of the last ten percent of our ancient forests.

Your two Subcommittees can help the United States set the standard for forest resource conservation, and demonstrate to the world we are practicing the sound management we preach. There are solutions to our current ancient forest management crisis, and I urge you to give serious consideration to the recommendations of the other witnesses who will be outlining strategies for conserving these ancient forests.

TESTIMONY OF BROCK EVANS
 VICE PRESIDENT FOR NATIONAL ISSUES
 NATIONAL AUDUBON SOCIETY

The National Audubon Society extends its thanks and appreciation to the Chairmen of these Subcommittees for their decision to hold hearings regarding the management of what some call "old growth forests," and what we in the environmental community have come to term, as more accurately descriptive, "ancient forests." The life of our nation together, as one American people, Mr. Chairman, is not long in the history of the human race on this planet -- a little over 200 years. But the ancient forest, with its great trees and intricate web of life which we are talking about here today, does not begin to take its unique form until the trees are about as old as the American Republic. Two hundred years is about the youngest of any of the forests or their associated trees that we are talking about here today; many of the individual trees began their lives far beyond that, beyond the time of the Pilgrims and the Mayflower, beyond the arrival of Columbus in the New World, beyond the Hundred Years War, beyond the Magna Carta, some even beyond the far off (9th century) time of the Emperor Charlemagne. Three years ago, for example, when the U.S. Forest Service permitted the logging of the famous Millenium Grove in Oregon, our scientists counted rings on the trees nearly 1,000 years old -- going back to the time when King Ethelred the Unready was trying to keep the Danes out of England.

And it is not just the age of some of the trees that makes the ancient forest so unique. The actual forest, itself, in which the giant trees grow -- some of them eight feet thick and over 200 feet high -- is as you know made up of a dynamic ecosystem, an interlocking and very complex web of unique plant and animal communities which has stretched back undisturbed far beyond our Middle Ages even. This American ancient forest has survived undisturbed far back beyond the time of the Romans, of Christ, back beyond the time of the Greeks and then the Persians, beyond Solomon, beyond the time of the great Egyptian

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Pharaoh Ramses the II (1200 B.C.), back at least to the time of the world's first known Emperor, Sargon the Great of Sumeria, over 4,000 years ago.

It is important to state all these things at the very beginning, Mr. Chairman, because we believe that the subject of these hearings -- and any decisions which may result from them by this Congress, the forum of the whole American people -- are among the most fateful to be made in our nation's history. We are not just talking about big trees, or spotted owls, or rare and unique plants . . . we are talking about something very old, truly ancient. And we are talking about something uniquely American. The remnants and fragments of these once vast ancient forests are now found only in the remote valleys and ridges of the Cascade and Coast Ranges of Oregon, Washington, and northern California. Different in size and age from the rainforests of Southeast Alaska, and practically nonexistent in British Columbia anymore (having been nearly all logged off), these remnant forests, that are owned by the whole American people, are perhaps our planet's last living link with the Middle Ages and the ancient times beyond; they are truly the "last whispers of antiquity."

You will hear much evidence presented to you in these hearings about timber volumes, and board feet, and jobs; and that is as it should be. You will hear much other evidence presented about rare and unique wildlife, vanishing ecosystems, and alternatives for the wood products industry instead of liquidating these ancient forests -- and that is as it should be, too. These are all parts of the evidence that you will have to weigh before you make a decision.

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However, as you take evidence and hear testimony today, and if you are called upon to make a decision about these forests, please always keep in mind these two salient facts:

First, that these are not just ordinary trees in ordinary forests; they are unique on this earth.

Second, that at the present rate of logging (because we are never "harvesting" such trees, which took centuries to grow), it will not be 50 years, or 30, or 20 -- or even 10 -- until the last of these forests are destroyed. We urge you to fly over the national forests of these states and the lands of the Bureau of Land Management in western Oregon and look for yourself; we are certain that you will come to understand, as we all too painfully do, that within about five years all the remaining unprotected ancient forests of giant trees will be so fragmented and cut up by clearcuts and logging roads that there will be literally nothing left.

The National Audubon Society has spent several years now documenting these facts, Mr. Chairman; and other witnesses will present the results of our ancient forest mapping program to you. But the results are very scary indeed if one believes that these forests are special and unique -- and that they can never be replaced. We have found in every single case, in every single Ranger District and every single Resource Area of the Bureau of Land Management, not only severe fragmentation and destruction already, but plans for the next five years which will, for all practical purposes, completely eliminate these forests from any other multiple use except wood production. Yes, at the end of five years there will still be lots of trees standing; but they will almost

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entirely be in patches between the clearcuts and along the logging roads; there will literally be no forests remaining except what Congress chooses to protect.

How much ancient forest remains? Other witnesses will present more detail on this subject; however, an overview and a bit of history is certainly in order here. The short answer is that no one knows, exactly. The agencies that one would suppose ought to know, simply do not know with any precision. The history of the Forest Service's and BLM's approach to the issue has been first one of denial that it even is an issue (such forests being considered generally "decadent" and "overmature," thus ready for "harvesting"), and later, as scientific knowledge about the unique values of the forest increased, a great confusion about what definitions to apply.

It was not until about 12 or 15 years ago that a series of very able agency scientists began to intensively examine the structure and components of the American ancient forest. Led by excellent researchers such as Dr. Jerry Franklin, of the U.S. Forest Service, and Dr. Chris Maser, of the BLM, they soon learned that, far from being the so-called "biological deserts" that most foresters had assumed, the ancient forest was indeed a far richer habitat, producing far more public benefits than had ever been supposed before. Everyone had always known, of course, of the high quality and valuable wood that the trees could produce for the wood products industry; and anyone who had ever walked through them knew of their tremendous spiritual and recreational value. What was not known until a decade or so ago was the immense contribution to other multiple use functions and values provided by these ancient forests: retention of water during the dry season and provision

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of even flows throughout the year, because of the great mass of woody debris on the ground and in the streams; much greater resistance to forest fires than second growth or smaller trees; provision of vital thermal or security cover for game animals, not to mention for endangered species. We have even discovered -- through the complex interaction of the vole (a rodent), and a root fungus found only in the ancient forest -- a very significant role in propagation of new trees in clearcuts surrounding the remnant forests.

The best estimate of how much remained until a few years ago was found in a study by Richard Haynes of the Pacific Northwest Forest and Range Experiment Station. Completed in 1986, he estimated that 3.1 million acres of "old growth" existed on all lands in Washington and Oregon. However, he observed that his data was based on Forest Service figures from 10 years before -- 1976; and did not take into account much of the heavy logging of the intervening decade -- from 500,000 to 1,000,000 acres during that period.

But the next year, as public interest grew, the Forest Service announced that there was something like 6.2 million acres of such forest remaining. Having seen the heavy logging taking place about the Northwest, we were puzzled and investigated. What we learned is that the Forest Service had simply changed the definition, away from the "classic" standard used by its scientists (which takes into account the multi-layered structure and amount of woody debris on the ground, which together with the age and size of the trees, is called true old growth), and greatly expanded it. By counting all trees above 21 inches, down in some cases to 90 to 100 years old, adding in different species, small clearcut patches, and going up to much higher altitudes, the agency succeeded in arriving at its 6.2 million-acre figure. Unfortunately, while convenient

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from the standpoint of reassuring the public that there was no cause for alarm, this definition did not in any way reflect reality.

In fact, as public pressure mounted, the Forest Service did commence a "reinventory" which, to use a major old growth National Forest as one example, the Willamette in Oregon, produced a drastic downward revision of the amount of old growth forest that actually existed there, from the original estimate of 638,000 acres, down to 411,000 acres -- a reduction of 36 percent.

Sadly, we are confident that, once the proper definitions of ancient forest are applied, the public agencies will drastically revise downward their estimates of what still exists, on protected and unprotected areas alike, down still further. Unfortunately, for the controversy behind this issue, it is the giant trees' great age and multi-layered canopies at relatively low elevations that have the most valuable assets, both for wildlife and environmental reasons, and, apparently, for the wood products industry. That is why we are here today.

Thus, after a century of heavy logging, we can arrive at roughly the following assumptions about how much is left: On private lands, almost none. Almost all of that has been long since liquidated and shipped to the Pacific Rim nations.

On state-owned forest lands in Washington and in Oregon, almost none. Most of what remains would be on the lands of the State Department of Natural Resources of Washington State. The largest block we are aware of is about

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4,000 acres on the western side of the Olympic Peninsula; everything else is in far smaller fragments, if it exists at all.

The best estimate so far of what remains on the six westside forests of Washington and Oregon, plus the three northern California forests, has been prepared by Dr. Peter Morrison, consultant for the Wilderness Society -- a total of about 2 to 2.4 million acres. When the totals for the once-splendid eastside forests of ancient ponderosa pine and mixed conifer species are added in -- and we are now conducting a separate mapping program for these "forgotten" ancient forests -- perhaps about 500,000 acres more of these heavily logged forests remain.

Perhaps as the Forest Service conducts its reinventory now mandated by Congress, it will have different figures; but these are the best there are to go with right now. Considering that when the first white men came to the Northwest, there were about 19 million acres of this forest in Oregon alone, we thus realize that between five and ten percent now remains. The whole issue then, Mr. Chairman, is how much logging shall be permitted in this last fragment of the forest and how much protection shall there be?

Very little ancient forest is now in protected areas. The first question that is important to respond to is the statement often heard that "millions of acres" of old growth forests are already protected. I have seen some industry claims that 40 percent, or several million acres are "off limits to logging," and that "that is quite enough." The factual basis for these statements varies, sometimes including all the acres of all the national parks and wilderness areas, and sometimes just all the acres of what is called

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"commercial forest land" allegedly located inside the boundaries of these areas. And often, added to these totals, are the forest lands around riparian zones or scenic waysides, etc., which the Forest Service, for the purposes of its ten year plans, has declared that it will not log for the time being.

The last category can be disposed of easily. If the lands off limits during the current plans for the Forest Service are still included in the Allowable Cut Base -- as nearly all of them are -- then they will be logged sooner or later.

As to the amount of ancient forest actually located within northwest parks and wilderness areas, the most up-to-date totals from reliable sources that we have been able to ascertain are as follows:

Washington:

National forests:

Mt. Baker-Snoqualmie	119,000
Olympic	16,000
Gifford Pinchot	8,000
Research Natural Areas	8,000
TOTAL	151,000

National Parks:

Olympic	200,000
Mt. Rainer	87,000
North Cascades National Park*	100,000
TOTAL	387,000

TOTAL FOR WASHINGTON STATE 538,000

Oregon:

Mt. Hood	44,000
Willamette	105,000
Siskiyou	60,000
Siuslaw/Rogue River/Umpqua	41,000
Research Natural Areas	9,000
TOTAL	259,000

Thus, a very rough total for Washington and Oregon: 797,000 acres.

We need to point out, however, that the National Park figures are extremely suspect or in the case of the North Cascades, just plain wrong. In Washington State, Olympic National Park does have much forest in it; but except for the low elevation valley bottoms of major rivers like the Elwha, Bogachiel, Hoh, Queets, and Quinault, most of it is higher altitude, and does not meet the definition of true ancient forest.

The Mt. Rainer portions are in scattered fragments around the fringes of the mountain itself; it is very rare to find a continuous block more than one quarter of a mile away from a road of more than 1,000 acres in extent.

And the North Cascades Park figures, marked with an asterisk, are simply wrong. To quote from page 96 of the North Cascades Study Team Report (Secretaries of Interior and Agriculture, 1965): "Of the 683,000 acres of land in the proposed park, only three percent, or 19,000 acres, is commercial timber land now available that would be reserved. Some 6,000 acres of commercial forest land is included in that portion of the North Cascades primitive area which would be made part of the park. This is already reserved." In other words, not 100,000 acres, but a real total for this Park of 25,000 acres total of all "commercial timber." The actual old growth forest in this acreage is certainly less yet.

Thus, the revised total would be about 463,000 for Washington State, and 259,000 for Oregon, based upon current data. When the few acres of protected ancient forest in the eastside forests are added, perhaps 80,000 acres more could be included.

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But even these inventories are certainly overstated. For example, Mt. Baker-Snoqualmie National Forest classifies most of the lower valley of Milk Creek within the Glacier Peak Wilderness as "old growth forest." However, having walked through and explored the entire valley, I can personally report that most of this area is swampy patches of alder and meadows, or north facing slopes of second growth forest. There are only scattered stands of large trees meeting the definition of ancient forest. It is the same in many other valleys in Washington's wilderness areas -- e.g., Deception Creek, in the Alpine Lakes Wilderness.

Or, to take an Oregon example of what is a very typical situation, the Pamela Lake Trail leading into the Mt. Jefferson Wilderness in the Willamette National Forest: One leaves the trail head and walks through a half mile of immense ancient trees, the classic old growth forest we are talking about. Upon arriving at the Wilderness boundary sign, the forest certainly continues -- but the trees get almost immediately smaller, and the forest is of a different character. Certainly attractive, but not the kind of ancient forest that is the subject of this hearing. We can see exactly the same situation at the North Fork Sauk River entrance to the Glacier Peak Wilderness. Again and again, the truly classic ancient forest of giant trees is simply not protected.

Based upon this analysis, we conclude that, at most, about 500,000 to 600,000 acres of genuine ancient forest are now protected, on all lands, east and west sides, in Washington and Oregon.

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What can Congress do? The National Audubon Society, working through its dozens of chapters in the Pacific Northwest, as well as its 600,000 members nationally, is so concerned about the fate of the remaining American ancient forests, that it considers the protection of ecologically significant and valuable remaining stands of it as one of its top five "High Priority Campaigns." To that end, we have committed the resources of our scientists, who have analyzed the needs of the spotted owl as an indicator species extensively and have published a formal report on the subject, as well as the resources of several dozen researchers who are now, in cooperation with the Forest Service, making maps of the remaining ancient forest resource on all national forests of the three states in the old growth region, east side and west side. The total commitment of money and staff time is well over a half million dollars at this point in time. We are physically mapping 93 Ranger Districts on 25 National Forests to collect the data that the Forest Service does not have.

We believe it is essential that Congress, after receiving evidence about not only the unique values of this forest, but also the destruction it is now undergoing, take firm and direct steps to do the following:

1. Impose upon the federal agencies involved a halt to logging plans for the larger and least fragmented tracts of ancient forest meeting the definition, at least until a more thorough inventory and analysis is made. Such famous places as Opal Creek, the Breitenbush River Valley, and the Leadhorse Rim in Oregon, Higgins Creek, and the Whitechuck River in Washington State, will soon be lost if this is not done.

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2. Introduce legislation, conduct hearings, and pass statutes which draw specific lines, recognizing the unique values of these ancient forest, and protecting them by law. This could either be accomplished by creating a new system, such as an Ancient Forest Preserve System, or some other statutory arrangement. But we are convinced, after years of working with the Forest Service and BLM, and attempting to persuade them to recognize the values of these places -- that the agencies will not do it. The whole performance, so far, has been very much in the other direction, unfortunately.

What about the needs of the wood products industry? The National Audubon Society believes in and desires the permanent existence of a strong and healthy and vibrant wood products industry in the Pacific Northwest. This is a part of our culture and our heritage, as well as an important contributor to our economy. We do not believe that preserving that five percent or so of the ancient forest which remains need have anywhere near the dire impacts that are predicted by some industry spokespeople.

Looking at the entire "wood basket" of the Pacific Northwest, all lands together, we observe that there are at least 20 million acres of forested lower elevation lands in western Oregon and Washington alone, outside the national forests -- some of which are now being logged, others of which could be if Congress were willing to take measures to guarantee a supply of wood to mills which need it.

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Looking at the volumes in westside national forests alone, we observe that in age classes which are not "ancient forest" (under 200 years and over 60 years) the best estimates are that there are about 107 billion board feet of volume available. If the Forest Service was to reschedule its timber sale program away from its present practice of "creaming" or "high grading" the remaining unfragmented blocks of old growth and instead concentrated on the already-roaded second growth lands for thinning purposes, a substantial portion of the wood supply now counted on by the wood products industry from the national forests could be met for the short term, while the whole issue is refined, discussed, and finally resolved.

Third, based on the results of a preliminary analysis of the Willamette national forest, conducted by our consultants, we are convinced that significant further volumes can be found from areas so heavily fragmented that they are less valuable for ecological, and wildlife, and other multiple use purposes. We would like to work with the industry and the Forest Service to seek supplies of wood from such places to meet short term concerns.

For the longer term, we feel it is imperative to do something about the drain of log exports from the Northwest states. Much of the Northwest forest is now racing past empty mills on loaded log trucks for the docks to be exported from these states (and the jobs along with them) at a rate at least three times the volume of that which might be available if the court injunctions now protecting the ancient forest were lifted. And the irony is that at the same time we are shipping our raw logs and our jobs to the Pacific Rim, we are importing about 14.5 billion board feet of finished lumber from Canada to make

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up the difference! We lose, workers lose, and America loses every way, Mr. Chairman, by this practice. It must be stopped.

Finally, we are eager to work with the industry and the Congress on a variety of other measures to help to assist the wood products industry in its inevitable transition to a second-growth economy: Such measures as guarantee funding to help old growth-dependent mills retool to cut the smaller trees, and to acquire industry timber lands now available and on the market and dedicate them to timber growing and harvesting purposes in perpetuity, are just two of the possibilities that come to mind.

Conclusion. Mr. Chairman, we believe that there is a win-win solution to what is called the ancient forest controversy now sweeping the Northwest. We believe there is indeed enough wood to guarantee to the wood products industry the supplies it needs to remain healthy and vibrant forever, and remain an important part of our culture and our economy. And we equally believe that there is enough wood to not only accomplish this, but also to permit you -- the Congress -- to permanently protect the remaining significant and important tracts of our splendid, and unique ancient forests.

But we must act soon, because at the present rate of logging, we will not be able to make such decisions much longer. After two decades of trying, without much success, to protect some of this forest, we come before you for probably the last time. We cannot come back again -- because there will not be anything left to come back for. Thank you.

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TESTIMONY OF
CHARLES RAINES
NORTHWEST REGIONAL VICE PRESIDENT
SIERRA CLUB

I am Charles Raines, the Northwest Regional Vice President of the Sierra Club. The Sierra Club is a national citizen environmental organization of 500,000 members, organized in active chapters in every state. Our Oregon Chapter and our Cascade Chapter (Western Washington) have over 20,000 members. The Sierra Club has been a major participant in conservation issues in the Pacific Northwest for over 90 years. Today, the leaders of these chapters, who are elected by our members, are working very hard to help find a resolution to the old growth forest issue which can serve the needs of our economy and the needs of our environment.

Today, the Sierra Club comes before your two subcommittees with a proposal for how the old growth forest controversy might be resolved. Before I present the "Outline for a Resolution Process" to the old growth forest issue, I want to give you the key assumptions on which our approach is based.

FIRST, old growth forests are an essential, invaluable natural resource in their own right, and the preservation of this resource ought to be an important goal for our society.

Nowhere else on earth do coniferous forests of such majesty and splendor exist. These cathedral-like temperate rain forests are to North America what the Amazon rain forests are to South America. These forests are rapidly disappearing and the ecosystem and the host of plants and wildlife it supports is at risk.

SECOND, the ultimate preservation of the old growth forests depends upon Oregon and Washington having a healthy economy which includes a sustainable and reasonably-sized timber industry. This is a part of the vision for the future which the Sierra Club shares with the timber industry.

The Sierra Club does not believe that our nation must choose between old growth forests and a viable forest products industry. If we are judicious in setting policy, we can have the best of both. It is essential, if we are to see this problem be resolved, that the opposing sides acknowledge the validity of the core concerns of their opponents. So, let me be clear about it: The Sierra Club wants to see a viable, sustainable timber industry as part of the environment of Oregon and Washington. We want a resolution to the old growth forest issue which makes that possible.

THIRD -- and closely related -- the timber industry in Oregon and Washington is in the midst of an enormous transition, which creates dislocations and stresses. Not all elements of the timber industry react identically to these dislocations, as is demonstrated particularly by the log export issue. Firms that export logs are not as concerned about mill jobs as, for example, are independent sawmill companies.

The timber industry of the Northwest was built on the logging of what seemed then to be inexhaustible old growth forests. As the decades have passed, we have seen these once vast forests reduced to only about ten percent of land they once covered. The timber industry having cut the majority of old growth forests from their own lands have turned increasingly to second growth forests as the wood supply of the future. However, even as this historic transition in the industry is taking place, many mills (particularly, small independent mills) continue to rely on large old growth trees. The only place these ancient trees remain are on the publicly owned forests, particularly those managed by the Forest Service and Bureau of Land Management (BLM).

FOURTH, if we are to reach the goal of a sustainable domestic forest products industry and preservation of old growth forests,

our political leaders must change some present policies which now threaten BOTH the viability of our domestic industry AND the survival of our old growth forests.

Many mills that have retooled in recent years to handle second growth timber are unable to compete in the market with the price paid by foreign purchasers for raw logs off of private and state lands. One out of every four trees cut in Washington and Oregon from all ownerships is exported overseas in raw log form. The export of raw logs from the Pacific Northwest in 1988 was 4.3 billion board feet, nearly equivalent to the entire timber sale program for the Forest Service in Washington and Oregon. Thus, many small domestic mills are not getting an adequate supply of logs and many are closing or curtailing operations. Not surprisingly, timber workers and mill owners want to obtain additional supplies. Unfortunately, their response has been to call for an increase in timber sales from our federally managed forests, the one source of wood that for the most part cannot be exported.

The combination of these forces has brought tremendous pressure on our remaining old growth forests just as we are finding that the rate of cutting and fragmentation is threatening the viability of these unique forests. Indeed, a substantial component of these remaining ancient forests must be preserved if we are to protect the host of wildlife, plants, and other resources that depend on this ancient forest ecosystem.

Curtailing the export of raw logs would reduce the pressure to have an unacceptably high cut on the federal forests and help assure an adequate supply of logs for domestic processing.

FIFTH, long term community stability is as dependent on economic diversity as ecological stability is dependent on biological diversity.

Efforts to broaden the base of economic activity need to be a cornerstone of the resolution process. The Small Business Administration and the Economic Development Administration are well positioned to assist this process.

SIXTH, it is absolutely clear that the U.S. Forest Service and the Bureau of Land Management will not -- and perhaps institutionally cannot -- reach timber management decisions which lead to an acceptable balance which will assure the preservation of the old growth forest ecosystem.

SEVENTH, it is also clear that the federal courts are not the forum in which this issue can ultimately be resolved.

We and other groups have found it necessary to resort to lawsuits because the land management agencies have failed to fulfill their lawful obligations to provide balanced evaluation and management decisions on these public lands. In fact, the courts have agreed with us that the agencies are not fulfilling the requirements of the law.

Nonetheless, injunctions are not the final nor the best answer. Our goal is not to tie up the National Forests or to hamstring the timber industry. Our goal is to see the public forests managed in a way which sustains their biological diversity and preserves our legacy of wilderness, wildlife, watersheds, and fisheries. To accomplish this requires that some areas of the National Forests (and BLM lands) be set aside for protection, as they are, without timber harvest or other incompatible activities.

EIGHTH, it is therefore unmistakably clear that it is the Congress, not the agencies and not the federal courts, which must

grapple with and ultimately resolve those land use controversies which, like the old growth issue, ultimately must be decided as value judgments.

How much old growth forest should be preserved? Which specific areas should be preserved? These are questions which the agencies have demonstrated an incapacity to resolve acceptably -- acceptably to us or to the timber industry. As with the establishment of national parks or the designation of wilderness areas, these are decisions which the Sierra Club believes will be best made, in the public interest of the entire nation, by our elected representatives here in the Congress.

NINTH, and finally, from all of these fundamental points, we conclude that if there is to be a resolution of the old growth issue, and if that resolution is to withstand further court challenge, it must be a political decision, made by elected representatives who can best assess and judge where to set the balance.

In order to find a resolution to this issue, the Sierra Club is prepared to make constructive proposals, and to work toward a broadly agreed-upon resolution of this issue. We have done so, as you all know, in the very similar case of the post-RARE-II question of wilderness designation on the National Forest lands. Following the federal court decision and injunction in the case of California v. Block, the Sierra Club directly helped to negotiate the so-called "soft release language," which found a way to relieve the threat of lawsuits by having the Congress arrive at an acceptable compromise on wilderness designations. Like any compromise, those which have resulted from this process have not been all that we might have preferred, and I am sure they have not fully pleased those interests which were opposed to wilderness designations. But that process HAS worked!

It has worked because the PROCESS for resolution was a fair one. It has worked because the opposing interests each found they had something to gain from the compromises involved. And it has worked because the opposing interests found they could mutually accept the decision-making processes of the Congress, including your two committees.

We want to help your committees and the congressional delegations from Oregon and Washington in the task of finding the process for resolution which can, as has the RARE-II process, lead to reasonable resolution. Down that path, rather than through protracted confrontation, lies the best promise for achieving a pattern of National Forest and BLM land management which can sustain both a viable timber industry AND the invaluable old growth forests.

With that background, I will spend the remainder of this testimony presenting our proposal for an "Outline for a Resolution Process," to the old growth forest issue.

Working Toward A Resolution

You will hear from others the details about the lack of an adequate inventory of old growth forests on our federal lands, and about the shell game the Forest Service and BLM plays in moving Spotted Owl Habitat Areas (SOHA's) around the forests. All of this makes it difficult to determine exactly how much old growth forests remain, their exact location, and thus how much must be protected to in turn protect the ecosystem and the creatures dependent on it. Nevertheless, we have enough information to know that the old growth forest resource is in trouble and we are nearing the threshold where species such as the spotted owl risk extinction.

At the same time, through the efforts of the Sierra Club, The Wilderness Society, the Audubon Society, and increasing efforts by

the agencies, we have identified many biologically significant ancient forest areas. These efforts are increasing the level of information that is necessary to make informed decisions. Meanwhile work needs to be accelerated to complete the inventory process and biological research on old growth forests and dependent species.

Nevertheless, we believe that we can start making some decisions based on the information that we now have, and set up a process that allows us to continue to make decisions as the inventory and biological research work continue. We don't have to have all of the information to start making some reasoned choices about what areas must be protected and what areas are not essential to spotted owl and old growth forest ecosystem protection. But we cannot complete this task in the absence of obtaining more information than we now possess. Our proposal for a framework for resolving this issue addresses both elements.

We believe that we can protect the necessary amount of our remaining old growth forests and maintain a viable timber industry in the Northwest. A sizable portion of the timber supply will continue to come from our federal forests, including an old growth component. But the level of timber sales will have to be substantially less than historic rates and increasingly come from lands that are not ancient. This base level of timber supply from our federal forests must be complemented by efforts to increase production from non-industrial forestlands and restrictions on log exports. By broadening our perspective to include all elements of potential timber supply, we have the ingredients to meet timber supply needs and protect our ancient forest legacy.

The pressing issue is how to assure a short-term timber supply to those mills that are most in need while we work our way through a resolution process. We believe that a package can be fashioned that addresses this need and makes a commitment to protect the

biologically essential old growth areas as we work toward a long-term resolution of this important issue.

Outline for a Resolution Process

We propose that interested citizens, civic groups, industries, and elected officials begin to outline the framework for a process that will lead to the resolution of the issues surrounding the management and protection of the old growth forests of the Pacific Northwest.

We suggest the following outline as a point of departure for such an effort:

1. As part of the ongoing efforts to fulfill the requirements of the Endangered Species Act, the National Forest Management Act and other federal laws designed to protect the old growth forest and its dependent species, Congress should establish a multi-year process to decide which ancient forest tracts should be permanently protected and which do not need to be retained to meet the goals of the above mentioned Acts. This process would allow all parties to engage in discussions that would provide for timber and preservation needs in a manner that would provide a degree of certainty to all.
2. Establish a process for determining which communities and mills are most vulnerable to short term timber supply interruptions due to the efforts to protect these ancient forest resources. Congress should seek short term methods of ensuring that timber made available through this resolution process could be channelled to these communities and mills.
3. Conservationists would agree that for a two year period they would help determine areas of the national forests and BLM lands that could provide a reasonable timber sale level for Region for Washington and Oregon (Forest Service Region 6).

4. Congress should enact legislation to allow states to restrict the export of unprocessed logs from lands that they own or administer. Congress should also restrict the practice of direct and so-called third party substitution from federal lands.

5. Congress would instruct the U. S. Fish and Wildlife Service to monitor the Congressional process established above and report on whether or not that process will ensure the protection of the flora and fauna dependent on the ancient forest ecosystem.

We urge those parties that are interested in efforts to resolve the issues involved with the protection and management of the ancient forests to contact us to comment and discuss the approaches outlined above or others that might be available.

The process I have just described allows for Congress to move forward expeditiously both to protect the biologically important old growth forest areas and to assure a stable timber supply from federal forest lands. It addresses the need for short-term action related to timber supply and protection of critical areas, and allows sufficient time for final decisions to benefit from the ongoing inventory and biological research that is being done.

As this process takes place we believe that it is critical that Congress simultaneously address the issue of a long term timber supply that is less dependent on logging of federal forests. This can be accomplished by adopting log export control legislation, incentives to increase production of timber from non-industrial forest lands, and purchase of cutover corporate timberlands to add to the National Forest System (see attachment #1).

We are ready to discuss this framework and the other elements that we have identified as being part of the necessary overall package to maintain our ancient forest ecosystem and a viable timber industry in the Northwest.

Attachment #1

COMPONENTS FOR SHORT-TERM AND LONG-TERM TIMBER SUPPLY

SHORT-TERM ELEMENTS (1-2 years):

- 1) A two year timber sale program of for Region 6 national forests.

- * This would include identifying areas that are not old growth forest or spotted owl habitat in which future timber sales could be developed.

- * Support increased funding for pre-commercial and commercial thinning opportunities on the federal forests. Data suggest this could result in 300-500 million board feet of such sales for next year.

- * Review of sales to determine those that would not be opposed because they do not threaten spotted owl survival or the integrity of the old growth forest ecosystem.

- 2) A commitment to action on log exports.

- * More vigorous enforcement by the Forest Service, BLM, U.S. Attorney Generals Office, Federal Bureau of Investigation, and the Customs Service of existing federal log export restrictions. This would result in some increase of logs being made available domestically.

- * Either through the appropriations process or by direct legislation eliminate or start the reduction of direct and so-called third party substitution.

MID-TERM ELEMENTS (1-4 years):

1) Log export control legislation.

* Pass legislation similar to H.R. 1191 and S. 755, introduced by Congressman DeFazio and Senator Packwood respectively, that would allow states to prohibit the export of raw logs from state owned or administered lands.

* Apply a surcharge or other fee to raw log exports. The funds created by this fee could be used for several purposes including:

-- Purchase of cut over or stocked corporate timber lands to add to the national forest system. This would allow these lands to be managed to provide a sustained yield of timber supply and be protected from export markets. Many corporations have some or all of their lands for sale. (Such lands could also be acquired using LSWCF monies.)

-- Another use of these funds could be assist local mills in retooling to handle second growth timber more rapidly thus decreasing the pressure on old growth forests.

2) Increase timber production from non-industrial forest lands. Often the most productive timber lands are low-elevation, gently sloped, higher productivity small privately owned woodlands. They are capable of producing a substantially higher volume of timber than is currently being done. In Oregon and Washington combined there are over 6,000,000 acres of these forested lands.

* Increase funding of the state and private forestry program to assist and encourage small non-industrial forest land owners to manage more of these lands for timber production. For example, in Western Oregon, currently only about 52 million cubic feet (approx

260 MMBF) are produced from these small ownerships. Some reports indicate these lands could be improved to provide 235 million cubic feet (1,175 MMBF) if properly stocked and managed.

* Set up a pilot program to have forest extension agents work directly with property owners to advise them on how to manage lands to produce timber and income consistent with other objectives they may have for that property. This could help address institutional and technical information barriers that prevent these lands from contributing significant timber supply. Similarly, they could work to identify timber operators who were more flexible in their logging practices to meet property owner concerns about not just having their land clearcut.

* Amend the tax code by passing the Wyden/Morrison bill to provide better incentives to property owners to manage these lands for timber supply.

* Consider giving preference or restricting use of these assistance programs to landowners who sign an agreement that the timber would only be sold to purchasers who would domestically process the logs.

3) Increase funding to the Small Business Administration and the Economic Development Administration for existing programs that will aid communities in diversification of their economic base.

LONG-TERM ELEMENTS (over 3 years):

1) All elements mentioned in the mid-term recommendations should continue, or be increased.

2) Reforestation of extensive private land backlog. Well over one million acres in Oregon and Washington of productive timber land remain fallow after logging. Federal assistance to replant is needed.

STATEMENT FOR THE RECORD
OF
DOUGLAS STOUT

VICE PRESIDENT FOR LANDS AND TIMBER
BOHEMIA INC.

I. Introduction

My name is Doug Stout. I am Vice President for Lands and Timber of Bohemia Inc., a public owned forest products manufacturing company headquartered in Eugene, Oregon, with sales last year of \$305,000,000. Bohemia has sawmills, plywood, particle-board, MDF and laminated beams plants located mostly in small, dependent communities in Western Oregon and Northern California. We own 85,000 acres of land that we manage, which gives us about 5% of our needs. As a company, we are heavily dependent on the national forests for our raw material supply, with 75-80% coming from federal lands. However, as the world's leading manufacturer of laminated beams, I would point out that Bohemia is not totally dependent upon the harvest of large diameter, old-growth timber. Our usage of smaller diameter, second and third growth logs is over 40%.

I appreciate the opportunity to testify today on the subject of management of old growth forests -- it is a critical issue in the West. I would like to introduce the industry's overview panel by sharing with the Subcommittee our overall perspective of the "old growth issue." Subsequent panel members will speak to the nature of the debate over the old growth resource, the economics of the forest products industry in the Pacific Northwest, and the economics of the industry and the importance of our forest landbase from a broader perspective in terms of global economic and environmental concerns.

Generally, all of the charges being levied by environmental groups involve: (1) an alleged threat to the last of the "old growth" or so-called "ancient forests"; (2) an immediate threat to the wellbeing of the Northern Spotted Owl recently proposed for listing as a threatened species under the Endangered Species Act of 1973. On 17 USFS sales we have found three previous unknown pair of spotted owl, plus one pair on BLM land and that is just since May 1, 1989. Prior to May 1, we knew of only one pair on the BLM and one pair on the USFS -- non-biologists are looking at 40-45 year old 2nd growth for owls.

The environmental community openly admits the Northern Spotted Owl is really a surrogate for the protection of old growth forests. But, the issue does not stop there. The concern over the wellbeing of old growth forests is, itself, a surrogate for a basic land allocation debate over the use of national forest lands. This debate has taken various forms since the establishment of the national forest system. Most recently, it resulted in many states -- including Oregon, Washington, and California -- in the passage of state wilderness bills. These bills were presently intended to allocate some lands for preservation and open other lands to multiple use management uses, including timber production.

There is nothing magic or novel in the current debate over "old growth" that distinguishes this land allocation discussion from the ones that preceded it. We are again arguing whether or not certain areas of the national forest system should be put to some productive use. We are reopening the question of whether additional areas of the national forest system and public lands should be protected from any such use.

Because of the fact that we are debating surrogates-within-surrogates, there is substantial confusion over: (1) definitions; (2) available facts; (3) the nature of the status quo; (4) the immediacy of any problems that might exist; and (5) the adequacy of agency management efforts to deal with those problems. We commend the Subcommittees for holding these hearings as an attempt to shed some light on this confusion and hope that in the course of this panel's testimony as well as that of the subsequent, issue specific-panels, we can provide the Subcommittees with both our views on these issues, as well as greater clarity on where the issues really lie.

II. Current Status of the Old Growth Resource

The Forest Service states that there are 6.2 million acres of old growth in our national forests in the Northwest. National parks in Washington and Oregon contain 943,000 acres of old growth. The Bureau of Land Management estimates that it has

406,000 acres of old growth trees. All told, there are 7.5 million acres of old growth on federal lands in Oregon and Washington -- the two states which have generated almost all of the controversy on this issue. Of these 7.5 million acres, 4.2 are preserved and unavailable to harvest. This massive area of preserved old growth is equivalent to a two-mile wide band of forest stretching from Seattle to New York.

To use one of the favorite environmental group basis of comparison of the recent past, this is enough old growth to circle the globe 112 times with a strip of old growth the average width of a Forest Service road. In our view, it is clear that there is no shortage of old growth forests, nor any immediate threat of the extirpation of the old growth resource.

Recent press stories have highlighted preservationist claims that the Forest Service has overestimated the acres of old growth in the Pacific Northwest. The stories question whether or not the Forest Service has 6.2 million acres of virgin forest covered with large, old trees greater than 200 years in age. You will have the opportunity in Thursday's hearing to discuss this with the Forest Service directly, but we believe that the Agency's estimate is probably reliable.

The lower estimates that you will hear today, and that we will debate in later panels, are based on narrower definitions of old growth and include only lands with specific sizes, species, and stand structures. Land exist that, while they do not meet certain environmental groups' specific, narrow definitions, do contain vast acreages of very old trees.

One might assume that the clarification of this point could lead us to an area of agreement. That is, preservationists should not object to harvesting at least those stands that do not meet their narrow definitions. However, before I infuse you with misplaced enthusiasm about a potential solution in this area, you should know that recent court filings by environmental groups in the northwest suggest that this is not, in fact, the case. They appear to be much more catholic in the definition of what needs to be preserved than they are in describing what the Forest Service has, in fact, available or already preserved.

The old growth numbers game is played thusly by these groups. Is a 1000 acre uniform stand of healthy, 300 year-old Douglas Fir trees four feet in diameter considered "old growth?" From a forest management stand-point, it clearly is. The previous Forest Service inventory agrees and included such stands in the 6.2 million acres.

To an ecologist, the answer would be maybe, depending upon what ecological values he is inventorying and whether or not a particular stand contains those values. To a preservationist, the answer would be no. The narrower definition of old growth might eliminate the stand for lack of adequate snags, woody material on the ground or multi-layered or multi-species composition. Such definitions when used in this fashion reduce the claimed acres of old growth, but not the total acres of old trees. The trees still exist and they are still big and old. They are simply not counted in the narrower definition used by environmental groups to postulate that we are rapidly eliminating the last, remaining stands of old growth.

III. Are We, In Fact, Eliminating the Last of the Old Growth?

Just as there is a tremendous acreage of preserved old growth, we are decades away from harvesting the last acre of old growth that is not permanently set aside. The new forest plans, incorporating sophisticated computer models, prescribe conservative harvest schedules for the old growth forest outside -- and I again emphasize we are speaking outside of -- the preserved areas. The most recent Forest Service information projects that old growth trees can continue to be harvested outside of the preserved areas for at least 50 years. The non-declining yield philosophy that guides the management of federal forests insures the maintenance of current timber sale levels in perpetuity and protects the forest from being overcut.

That, in our view, is why the timber industry should not (and, indeed, cannot) stop harvesting old growth to move to second growth forests immediately. We are managing old growth areas in a fashion that involves a non-declining yield, even flow of forest products materials. At the same time that we are harvesting some old growth, we are -- as I will explain shortly - adding to the old growth resource in other preserved areas.

Most importantly, however, there is insufficient volume of second growth trees of harvestable size at the present time to sustain any semblance of our present timber dependent economies. Private timber lands in Oregon and Washington have hundreds of thousands of acres of young, vigorously growing stands of second growth trees. However, the bulk of these forests will not be physically mature for 20-30 years. The Forest Service has not been harvesting its lands long enough to have a substantial volume of physically mature second growth. Therefore, if the Northwest is to maintain anything near its current economic viability, old growth must make up the majority of the annual harvest from our federal lands in the non-declining fashion indicated by the Forest Service for the next 20-30 years. Might I also add, if we are to meet the needs of housing for the people of America, at any reasonable price, we must continue harvesting old growth timber.

Clearly, as more second growth becomes available, a lot of the timber industry has adapted to this change. My company is a leader in this trend due to its involvement in the glue-laminated beam market. Economic and market forces have driven the movement. Mills like ours have been built or converted to handle smaller, more uniform timber produced from second growth forests. But these changes must occur gradually, influenced by economic and physical factors that result from the availability of certain types of raw materials. Mandating an immediate or abrupt shift to second growth will cause a massive economic turmoil. In my company's case with 2600 employees, we will have to layoff 1000 to 1100 employees immediately with a loss of \$30,000,000 payroll annually. Another \$12-15,000,000 will be a loss for suppliers and equipment sales, and most of these job losses are in small dependent communities. These people can not find jobs that pay anything near what they now make. They could not enjoy the good life we hear so much about by the preservationists.

IV. Old Growth Forests Are a Stage in a Dynamic Process.

As the facts regarding the 4.2 million acres of forest land already preserved were circulated, environmental groups shifted their emphasis to more specific definitions of old growth. They now claim that the last of the ancient forest, the West-side, middle elevation Douglas Fir forest is about to be harvested.

Douglas Fir forests are the specific target of attention. "Protect the ancient giants!" is the frequent cry heard on television, in the newspapers, and in the courtroom.

The Douglas fir forests in the Northwest are the ecological consequence of centuries of fires periodically burning forests in the region. These fires created a favorable climate for the establishment of Douglas fir forests. Douglas fir favors the full sunlight available in cleared or burned areas. At any particular time in the ecological history of the Northwest, there existed a wide array of different ages of forests. Contrary to the claims of the preservationists, very old Douglas fir forests have not always dominated our landscape in Washington and Oregon. In fact, much of the forest land in the coastal mountains in southwestern Washington and Oregon is 120-150 years old and the result of natural fires as recorded in local history before there was any substantial settlement in our region. Ironically these lands of 120-150 year old trees have also been enjoined and appealed by the preservationists.

Ironically, the long term preservation of old growth Douglas fir will insure its demise. Old growth Douglas fir forests will eventually transform into a climax successional-stage forest. This future forest will have shade tolerant species such as hemlock and silver fir in the place of Douglas fir. Dr. Jerry Franklin, a well-known old growth forest ecologist who will be

testifying before you later, has concluded through his research that: "characteristics or functions of old growth stands cannot be guaranteed in perpetuity by simply preserving existing old growth tracts...long-term management strategies must include plans to recreate stands."

Given the dynamism of this process, it is also important to recognize that there are many areas that have been set aside for preservation purposes in the Pacific Northwest that did not then contain large diameter, old growth forests. These sites are by-and-large uninventoried. However, we know that as they grow into older age classes, they will begin to exhibit the ecological characteristics of old growth tracts, and thus add to our old growth resource.

Our rough calculations indicate that there are about 2.2 million acres of young growth timber in the national parks and the wilderness areas in Oregon and Washington which have been permanently restricted from harvest. These forests range from young seedlings which will become established this summer burned areas to up to 199-year old trees. A century from now, well over 640,000 acres of this timber will be over 200 years old. Two centuries from now we could easily have our 1.4 million acres of additional old growth timber in these reserved areas if we simply do an adequate job of fire protection. If we spread this

addition uniformly over the period of times I just mentioned, we will be adding an acre per hour of forest land to the old growth resource throughout the next 250 years.

The addition to the old growth resource that we are making in our preserved areas must clearly be inventoried and quantified before we continue this round of the land allocation debate. There is no reason to pursue this issue as a one way street which takes more land out of productive timber management.

I appreciate the opportunity to testify today and will answer any questions you may have.

STATEMENT FOR THE RECORD
OF
DR. LARRY IRWIN

WILDLIFE PROGRAM LEADER
NATIONAL COUNCIL OF THE PAPER INDUSTRY
FOR AIR AND STREAM IMPROVEMENT

I. Introduction

Good Morning, My name is Larry Irwin. I am Wildlife Program Leader for National Council of the Paper Industry for Air and Stream Improvement (NCASI) in Corvallis, Oregon. NCASI is an independent research and technical organization, funded by the forest products industry, that gathers information to promote environmental management. The wildlife program is conducting research to clarify interactions between forestry and wildlife species in the Pacific Northwest. The research is conducted in cooperation with state and federal land and wildlife management agencies.

II. Unanswered Questions About the Northern Spotted Owl.

The most pressing questions for Northern Spotted Owls and other wildlife in forests involve how to proceed toward developing a better understanding of forest processes. How can we understand managed forest system responses and potentials in a world of great uncertainty, limited research resources, and continuing pressures between preservation and economic development? The biological processes involved are expensive to study experimentally, and/or do not offer speedy rewards for scientists to keep publishing, get grants, etc. Yet, the opportunity and social costs of not conducting the necessary

research work are predicted to be unbearable.

Traditional dogma promotes investing more in basic research in ecology while very cautiously regulating timber harvests so as not to foreclose options before they are fully understood. "Better" understanding usually is taken to be synonymous with "more-detailed" analysis of the components of the system to be managed. But how can anyone put all the component pieces together, even if they are individually understood? And, if the system to be understood is managed conservatively, how can we possibly make all observations and experiments necessary to predict responses, as extrapolated from component understanding?

Because we cannot answer these questions decisively through traditional methods, we must seek a fundamentally different approach. One possibility is to view current and past management activities as the primary tools for research experiments. In practice, management decisions apply information from a collection of facts and principles which contain sets of untested assumptions. But management treatments can be designed to produce knowledge, by recognizing that application of current understanding is landscape experimentation. For example, the decision for Northern Spotted Owls might be regarded as a large-scale management experiment, the results of which are predicted to be a "viable" population.

Since there is no experience that guarantees the habitat-island (SOHA) experiment will maintain a viable population of Spotted Owls (or the species they "represent"), prudence begs a field-testing of more than one management alternative.

Additional management experiments can seek to document the depth and breadth of variation over time and space which would allow for improved understanding of forest processes as they relate to Spotted Owls. Moreover, management experiments could be designed to broaden consensus understanding of forest processes which influence Spotted Owls. The following discussion outlines a process for gathering information which will answer important biological and management questions on Spotted Owls.

III. New Research Rationale

Many ongoing studies describe responses of Spotted Owls to forest fragmentation or compare use with availability of forest successional stages. Such studies have pointed out the biological problems associated with clearcuts and young forest stages. Now, new research designs are needed, with new objectives that address variation in forest conditions which have allowed successful occupancy by Spotted Owls.

From the available research completed to date, the following

observations can be made: (1) the responses to management by Northern Spotted Owls will only be clearly evident on large spatial and/or temporal scales; and (2) the basic biological processes involved should be the subject of significant research investment.

One alternative management experiment would test the hypothesis that existing reserve areas form nuclei for a viable Spotted Owl population. The population centers could be supported by sub-populations, in stepping-stone fashion, within managed forests. The experiment would involve structural features within managed forests occupied by Spotted Owls and their spatial arrangement relative to multiple sub-populations existing in reserved or pristine areas.

The experiment described above involves an examination of two objectives and their interaction: (a) an examination of population and habitat characteristics for Spotted Owls in reserved and pristine areas such as wilderness and roadless areas; and (b) documentation of variation in habitat conditions which allow successful occupancy by Spotted Owls in managed forests.

IV. Justification

First, current rates of occupancy and population fitness of Spotted Owls are unknown for areas reserved from timber management. For example, in the Forest Service Supplemental Environmental Impact Statement (SEIS), occupancy is predicted using an untested capability model developed from a set of unverified assumptions. Preliminary investigations in one reserve area in California suggest that densities and occupancy rates may be significantly higher than predicted by the capability model. Furthermore, the fact that home ranges of Spotted Owls contain more-than-average old-growth in response to fragmentation suggests the capability models are conservative with respect to reserve areas.

Second, it is clear to biologists working with Northern Spotted Owls that the Forest Service Monitoring Program could be enhanced. The current program averages occupancy over a wide range of habitats and sub-populations, and depends upon local studies of population dynamics to help interpret changes in occupancy. Such information cannot be relied upon to distinguish problem areas, nor can it point to population improvements as forests develop within the several physiographic provinces. Also, there is no knowledge of what changes in occupancy mean relative to population trends or viability, or how sensitive occupancy rate is as a parameter. Certainly, one would predict

site-tenacity to mask some trends in population dynamics.

Third, many, if not most, of the sites occupied by Spotted Owls resulted from repeated disturbance by fire, windthrow, and disease (i.e., factors which caused multi-layered conditions). Many others were regenerated by harvest practices which left some patches or scattered individual large trees and downed woody debris. Some 10-15% of the known Spotted Owl observations in Oregon have been in younger, developing forests which contain structural and floristic elements of older forests. Such observations offer hope of learning how to develop management programs designed to simulate natural systems by maintaining natural biological processes.

Moreover, population densities are highest in preferred habitats, but ecological theory predicts and empirical observations suggest Spotted Owls can be successful in less-preferred habitat where densities will be lower. Furthermore, recent research indicates old-growth structural characteristics can be created silviculturally.

Finally, it remains to be demonstrated conclusively that suitable habitat can be developed within managed forests to support viability of a regional population. The Spotted Owl will be best served using imaginative alternatives that can be supported by broad consensus developed through cooperative

involvement in research design and interpretation. The research work proposed here involves new technology that can reliably examine juvenile dispersal and survival, and new research designs that probe basic determinants of habitat selection and elucidate factors which regulated populations. Such research will include spatial factors and structural habitat features, both of which are manageable components that link Spotted Owls with their environments.

The proposed research studies will not prove Spotted Owls do not require old-growth forest; rather the work will be an attempt to test the hypothesis that Spotted Owls can be accommodated via a combination of reserved areas and prescriptions within managed forests. In the process of examining the predictions of the hypothesis, it is possible that previous conclusions may be modified or even invalidated, and the hypothesis itself may become more refined with experience.

V. Specific Topics

Science and technology cannot guarantee resolution of all concerns, but can promise an objective examination of possible combinations of management treatments. Specific questions should be answered for stand and landscape levels of ecological organization: Special topics include determining the relations to Spotted Owls of the following:

A. Stand-Level

1. Management experiments such as shelterwood harvests without final overstory removal
2. Uneven-aged regeneration practices
3. Pre-commercial and commercial thinning

B. Landscape-Level

1. Population density, reproductive rate, and interchange among 3 sub-populations.
 - a. Those in reserved areas (i.e., parks, wilderness)
 - b.. Those in "fragmented" forests (patches of old-growth and young)
 - c. Those in young forests regenerated over 40 years ago via a plethora of harvest practices.
2. Spatial inferencing models plus geographic information system (GIS) technology that allows monitoring to occur

VI. Epilogue

Those involved in the Spotted Owl/old growth debate would do well to recognize that application of current understanding is landscape experimentation. Scientists, biologists, managers, and

I suppose advocates, can loosely predict results, which, in fact, are unknown. Currently, landscape interpretations must be made for a viable Spotted Owl population using data collected from forest-stand level studies. Therefore, management agencies might consider employing landscape ecology concepts in research designs that look not only at Spotted-Owls but also examine the feasibility of maintaining wildlife diversity within managed forests. Proposals by federal agencies, NCASI, and the state of Washington are being developed to learn how to provide for wildlife diversity within a mix of managed and unmanaged forests at the landscape level.

I appreciate the opportunity to testify. I would be happy to respond to any questions the Subcommittee might have.

STATEMENT FOR THE RECORD

OF

ANN GOOS

EXECUTIVE DIRECTOR

WASHINGTON COMMERCIAL FOREST ACTION COMMITTEE

BEFORE THE

SUBCOMMITTEE ON PUBLIC LANDS

OF THE HOUSE INTERIOR AND INSULAR AFFAIRS COMMITTEE

SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY

OF THE HOUSE AGRICULTURE COMMITTEE

OF THE

UNITED STATES HOUSE OF REPRESENTATIVES

JUNE 20, 1989

I. Introduction

My name is Ann Goos. I am a resident of a small timber dependent town of Forks, Wa. I am executive director of the Washington Commercial Forest Action Committee (WCFAC), a community action group representing the northern half of the Olympic Peninsula in Washington state. I am an individual who believes in people's choice to live in rural towns, work hard in labor-intensive employment, provide necessary, biodegradable commodities, raise and nurture families, and pay their taxes and contribute to society. I am an advocate of land management based on balance, equity, parity, and environmentalism.

Unequivocally, the segment of the timber industry that is involved in the harvesting of timber on the public lands believes strongly in sound environmental protection of our forests. In fact it is only prudent that loggers working on public lands demand that trees are replanted, that land is managed wisely, and that our resources are protected from excessive overcutting and destruction. The most distressing factor of removing thousands of acres of old growth from the public lands available for harvest is that it forces unsound management strategies on second growth forests to satisfy the inevitable need for wood fiber. This in turn will forever ruin the public commercial forest for future generations.

As we know, the loggers who work on public lands are small

business owners. These people are not large corporations, they are independent contract loggers, small mill owners, single-log truck drivers. These people earn and depend on wages, not dividends. These workers don't own their own land, they utilize our public commercial forests. These workers are not land managers, they are required to follow the environmental guidelines and laws which govern the harvesting of timber on public lands. There isn't a public land logger who doesn't desire the public lands to be managed in the best interest of the environment so that they can continue to work in timber, their children can continue to work in timber, and their communities can stay viable long into the future.

Thus, it is truly sad when arguments erupt over the use of public lands and it is these workers who have no power and yet are the ones who suffer the direct consequences of losing their jobs, their homes, and their livelihoods. These workers are 100% dependent on a sale policy that includes the eventual harvesting of old growth timber. The sale of old growth allows the time for the second growth forests to become mature within 60-100 years so that this timber is available for future consumers and timber workers. To demonstrate how important the old growth stands of timber are to the workers in my area, a full 90 percent of the total volume of sales for the next fifty-seventy years off our Sol Duc District of the Olympic National Forest would be old growth timber if the management plans could go ahead. These

workers depend upon a stable sale policy as decided by trained foresters who have always figured the cutting of old growth in their management plans. The economic catastrophe of changing these plans at this point is almost unimaginable in my area of the country.

There is no rational reason as to why we have reached a point where it is a real possibility that over 45,000 people will lose their jobs. Unfortunately, some people have postured an either/or stance towards land management on public lands. Rhetoric and sanctimony have taken the place of science, technology, and ecological sophistication. Some advocate groups have postured a stance where they force a choice of preservation of more public lands over the societal needs of balanced management plans.

If preservation is the choice that you as a government make, we must acknowledge and recognize the consequences. However, we believe on the issue of old growth and habitat, we as humans must tackle the severe problems that we put thousands of our own species in. Humans are adaptable but humans also possess emotion, volition, and will. The problem with human adaptability is that humans have to want to adapt and realistically, there are many people out there who don't feel that it is necessary to lose their jobs. The timber industry is the largest manufacturing industry in the Northwest and the entire economical health of the

region is in severe jeopardy. The people who will be affected within months are not just the timber worker. The thousands who are employed in indirect jobs will also be facing economic peril.

There is no reason to force thousands and thousands onto the unemployment line and there is no reason to lose vast acreage of habitat needs. We can force land managers to manipulate strategy regarding silvicultural practices to provide for both a stable timber industry and old growth characteristics. We can provide for economic needs and leave the kinds of closed canopies and woody debris within the forests to stimulate old growth. This is parity and sensible. Remember, if we take the Olympic Peninsula alone, we have preserved over 1 million acres in perpetuity, roughly 500,000 acres of which is old growth. 53% of our national forests are preserved from any timber cutting forever. Over 118 acts and laws protect our federal forests from being exploited and destroyed. We must share our natural resources to protect the environment and provide for man's need also.

We must combine what we know about adaptive management, what we know about all the acres we have already preserved, what we know about the skills and marketing diversity of the timber laborer, and what we know about the people who are indirectly dependent upon the harvesting from the public lands and then make choices based on equality, not emotionalism. Balance is the key to our public lands. Wise-use is the answer to handling aesthetics, social, and economic needs our society has in 1989 and extending long into the future.

STATEMENT FOR THE RECORD
OF
WES HEDSTROM

PRESIDENT, HEDSTROM LUMBER COMPANY
GRAND MARAIS, MINNESOTA

I. Introduction

Good morning. My name is Wes Hedstrom. I am President of Hedstrom Lumber Company in Grand Marais, Minnesota. For 75 years Hedstrom Lumber Company has been a producer of both softwood and hardwood lumber. Our company is a family-owned concern in operation for three generations. We are heavily dependent on timber from the Superior National Forest in northern Minnesota.

I am also a County Commissioner in Cook County, Minnesota. Seventy-eight percent of Cook county is made up of lands owned by the federal government, and managed as part of the Superior National Forest. Another 12% of our landbase is owned by the state. Our school and road systems receive necessary funds from timber sale receipts from the Forest Service's timber sale program. While our county is heavily impacted by recreation, the timber industry provides the year-round employment base that supports our basic infrastructure such as hospitals and schools.

You may wonder why a lumberman from Minnesota is here testifying before you on an issue so closely associated with the Pacific Northwest. I am here for two reasons. First -- as you will hear in more detail from our witnesses on the next panel -- because the old-growth issue is not limited to the Pacific Northwest in the way it has been used by environmental activists

critical of the Forest Service management programs on the national forests. Second, I am here to offer my observations as a representative of the industry in a region where we are already operating in a stable second and third growth forest economy.

II. The Devastating Impacts Associated with Stopping the Harvest of Old Growth Trees on the National Forests Need Not Occur.

The previous witness, as well as some witnesses that will testify on following panels, describe the devastating economic and social impacts that will occur if we cease the harvest of old growth timber from those areas of the national forests in Oregon, Washington, California, and perhaps elsewhere that are presently devoted to multiple use management. As a representative of the industry in a region where virgin forests no longer make-up an important component of the commercial forest landbase, it is my view, that these devastating impacts need not occur if we make sensible land allocation decisions now.

As I indicated, in my region we have already moved to utilizing forest stands that, in some cases, represent the fourth rotation of our forest. Our transition from an "old growth" economy occurred at the turn of the century with the logging of the Great Lakes Pineries. Big fires at about this time also played a large role in establishing our current forest types on the Lake States national forests. As any student of the history

of our region knows, ours was not a smooth transition because as a nation we had not yet established an investment incentive for long-term forest management. That is, there was no economic justification for replanting trees and managing forests on a sustained basis. Moreover, at the turn of the century we had neither the scientific knowledge of forest ecology, nor the silvicultural techniques needed to make sustained yield management a reality as we utilized the old growth stands of the upper Great Lakes.

Nevertheless, this transition did occur with (I would mention parenthetically) much of the generated capital transferring into the development of the auto industry in the Great Lakes. Now we are a stable industry that is actually exploring additional production potential as we gain a better understanding of the uses of some of our forest species in the manufacture of a variety of forest products and enhancement of forest values.

For example, by finding new uses for aspen, spruce, and balsam fir -- through research which has allowed a substantial expansion of our industry -- we have been able to significantly improved wildlife habitat for moose and deer, the prey species of the northern timber wolf -- a federal an endangered species. Consequently, there are now 3-4 times more wolves in Minnesota than there were 20 years ago.

In sum, we are now a stable and expanding industry in the region, and have invested or committed \$2.5 million over the last 10 years in modernizing or building new plants. This has come primarily from the better utilization of diverse species of our current forests.

In the context of the issue that the Subcommittees are reviewing, in the Pacific Northwest we are facing the prospect of the same sort of abrupt and devastating change from old growth to a second growth economy that we faced in the Lake States. However, this abrupt transition and attendant economic dislocation will not happen because we lack the incentive or the knowledge to manage change and make it occur gradually. Rather, it will happen because -- if you accept what environmental groups suggest as an appropriate course of action -- you decided in the middle of this transition to eliminate the ability to make it a smooth one by removing a substantial portion of the forest landbase from the rotation cycle.

My colleagues in the Pacific Northwest have not been overcutting their forest landbase based upon how big you told the Forest Service it should be upon passage of the 1984 wilderness bills and the completion of the forest plans. If you change that equation or stand by and allow it to be changed by dilatory litigation, you will be dictating the terms of forest management

and the size of the industry for the next generation.

III. The Controversy Will Continue Even After the Disposition of the Old Growth Resource is Decided.

I would like to be able to say that, because of the maturity of the industry in our region, the public policy challenges in allocating the publicly-owned forest resource now are behind us. However, I cannot say this because, even though there are no "ancient forests" in our region, we are still engaged in very divisive and emotional land allocation debates about the use of our public lands.

In some cases, these are conflicts over wilderness allocation. In other cases, these conflicts relate to the needs of certain wildlife species. In still other cases, we are involved in conflicts related to the protection of biological diversity or some other aesthetic concern. Finally, in a few cases, where our second growth forests have moved beyond maturity, we are engaging in debate over the preservation of "old growth" stands which are being represented as "ancient" or "virgin" forests.

In a very real sense, these conflicts over the allocation of public and, in some cases, private lands never really seem to get resolved. Only the names change as time goes by. I am deeply

concerned that, because of these land allocation disputes, our region may be prevented from ever reaching its productive potential in the world market for fiber. I fear I will leave the third and fourth generation family members in my company with these unresolved disputes.

IV. The United States Must Be A Premium Supplier of Wood Products to the World.

I offer this observation as a citizen concerned about the health about the global environment. The market for wood products in which we currently operate -- whether we are talking about the market for solid wood products or pulp fiber -- is a world market. In this market we compete with other developed and developing countries. To the extent that we reduce our production, the demand for wood products will be met by other countries.

As a country, our forest lands are blessed by fertile, temperate zone soils. They are capable of being managed on a sustained basis using a body of knowledge that far exceeds mankind's understanding of soils in other parts of the world -- for example, in the forested tropics.

The United States also has the most advanced silvicultural systems and forest science in the world today. Simply stated, in part as the result of visionary research programs fostered by Congress, we are the acknowledged world experts in forestry.

Third, we have the most sensitive environmental control limitations in the world. Regarding the national forests in particular, they are managed under the most restrictive environmental and resource control requirements found anywhere in the world.

The national forests contain half of the country's supply of wood that is used for construction purposes. However, the amount harvested from the national forests is only 15% of what Americans use annually. I view this as a contemporary, global tragedy in a world so starved for fiber that large areas of the tropics are deforested daily.

Yet, you will hear requests today and have heard requests at previous hearings for the harvest levels on the national forests to be reduced by 50%. The next time that you hear that request, you should be aware that the timber volume involved equates to the annual wood production of the Amazon Basin.

As you review this issue today, I would urge you to be sensitive to the economic situation presented by the timber dependent communities of the Northwest. But more broadly, I would ask you to understand that we have a responsibility to look at this as a global issue and to assess our proper role in a global solution.

In my view, we have a responsibility to produce wood fiber to our potential because we can do so in a way that minimizes the environmental implications of this action. The balance of the world simply lacks this capability. The wood we choose not to produce will be replaced in the world fiber economy by wood from Borneo, Malaysia, Chile, the U.S.S.R, and Brazil. Our reluctance to perform to our potential will have grave implications for our ability to convince the developing world that their forests should be conserved.

I appreciate the opportunity to testify and would be happy to respond to any questions.



THE WILDERNESS SOCIETY

STATEMENT OF PETER H. MORRISON, FOREST ECOLOGIST FOR THE WILDERNESS SOCIETY, BEFORE A JOINT HEARING OF THE U.S. HOUSE OF REPRESENTATIVES, INTERIOR SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS AND THE AGRICULTURE SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY, ON OLD-GROWTH FORESTS IN THE PACIFIC NORTHWEST, JUNE 20, 1989.

Mr. Chairman and Members of the Committees, I am Peter H. Morrison, Forest Ecologist for The Wilderness Society. On behalf of The Society's more than 300,000 members, I appreciate this opportunity to testify on ancient forests in the Pacific Northwest.

The Wilderness Society has a long standing commitment to ensuring sound management of federal lands and has devoted considerable professional expertise to achieving this goal. We believe that the lands managed by the Forest Service and Bureau of Land Management are especially unique in their ability to provide essential biological, recreation, wildlife, watershed, and commodity benefits.

Perhaps nowhere else within the federal land system is the need for major policy change more urgent than in the Pacific Northwest. There, primarily on national forests and Bureau of Land Management lands, are found the most significant remaining portions of the original forest endowment that once graced much of this nation. In western Oregon and Washington alone, scientists estimate that ancient forests once occupied nearly 20 million acres -- possibly more. What is left today after more than a century of heavy cutting is only a small fraction of that original endowment. In the Pacific Northwest also are found powerful proponents for continued liquidation of our irreplaceable ancient forests.

If this resource were plentiful, which it is not, or capable of renewing itself quickly, which it can not, we might be elsewhere today. But time is running out for this national treasure. Based on my inventory work and estimates from state and federal agencies, there are likely not more than 2.4 million acres of ancient forest -- or "old growth" -- left on all ownerships in western Oregon and Washington. All estimates now

available are at least one year out of date; therefore, the most current range of the ancient forest is probably even more limited. This means we have already cut 90 percent of the original ancient forest endowment in this area. Most of what remains is not protected. Indeed, under present timber sale plans, virtually all ecologically viable ancient forestland will be logged on several national forests and on Bureau of Land Management lands in the region within just a few years.

My testimony describes The Society's findings, which were first published last November in a study I prepared titled "Old Growth in the Pacific Northwest: A Status Report." Mr. Chairman, in the interests of time, I ask that this document be entered into the record of this hearing so Committee members can examine our methodology and results in detail. In addition, I will describe our current ancient forest mapping project and present preliminary results for the Olympic National Forest.

The Wilderness Society's Ancient Forest Inventory

The Wilderness Society has long been concerned about the absence of reliable data on the amount and location of ancient forest in the Pacific Northwest. Lack of information has caused confusion and uncertainty in the important debate over the future of the ancient forests. Therefore, beginning in 1986, The Society undertook an analysis of 12 national forests located on the western side of the Cascade Mountains in Washington, Oregon, and northern California. It quickly became apparent that sound, current inventories were not available, and The Society initiated a new inventory project. This effort, now completed for six of the forests, is the only inventory that makes a distinction between mature and old-growth forests and uses the scientific definition of old growth developed by the Forest Service. Our work has been favorably reviewed by top Forest Service scientists, university statisticians, and others.

Methodology

The Society's study used original Forest Service data and analyzed each timber inventory plot by forest type, tree diameter, age, height class, tree species diversity, and snag density -- all important components of ancient forests. Each plot was then evaluated according to minimum old-growth criteria (e.g., number of snags and size of trees necessary in a particular forest type to qualify as old growth) established by the Forest Service.

The analysis enabled a determination of the amount of old growth present at the time of the Forest Service inventory. Wilderness Society researchers updated the information to the present using aerial photographs, Forest Service records, and overflights. During the updating process, researchers also gathered additional data on the size of old-growth stands, their landscape context, and their proximity to roads and clearcuts.

Results of The Wilderness Society Study

Amount of old growth. The Society's analysis of timber and vegetation inventories for six westside national forests -- Mt. Baker/Snoqualmie, Olympic, and Gifford Pinchot in Washington and Mt. Hood, Willamette, and Siskiyou in Oregon -- indicates only 1.1 million acres of old growth remain (Figure 1). This equates to about 15 percent of the total net acreage in the study forests.

The Forest Service draft plans claim 2.5 million acres of old growth in the six forests, more than twice the amount found in our study. After The Society released its report, the agency lowered its estimates on two forests -- from 231,000 acres to 198,000 acres on the Gifford Pinchot simply by subtracting the acreage that had been logged and from 346,000 to 178,000 acres on the Mt. Hood by incorporating data from the agency's most recent inventory, a step the Forest Service failed to take earlier. The agency also reduced its estimate for the Willamette forest, from 640,000 to 411,000 acres. But our findings indicate even these estimates are inflated.

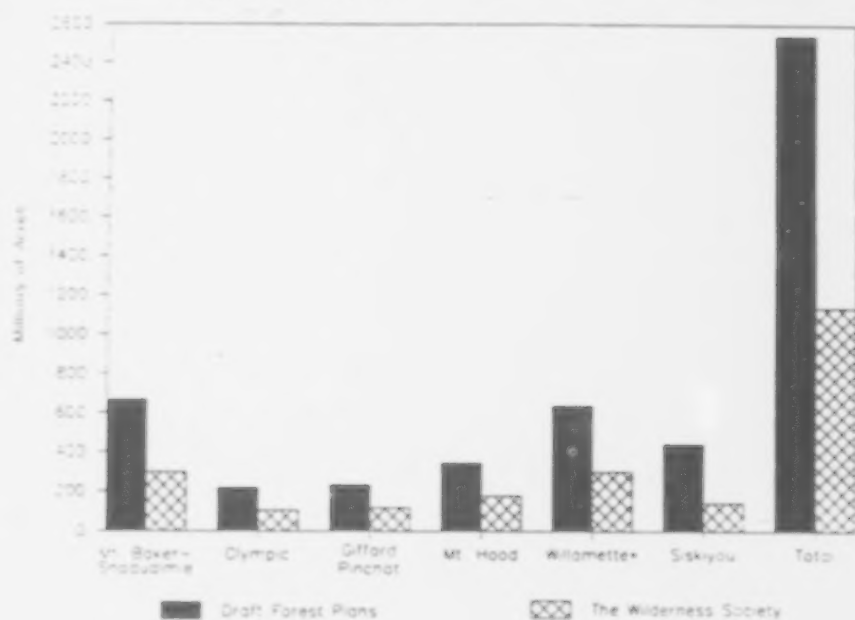
The effects of fragmentation. Old-growth forests enjoy a natural buffering from environmental extremes of temperature, drought, snow pack, and wind due to their high, multilayered canopies and immense biomass. However, as roads and clearcuts intrude into the forest, landscape fragmentation occurs. Natural buffering decreases as old growth stands are reduced in size and more of the forest is subjected to edge effects. Blowdowns, fires, insect and disease infestations, snag cutting, and salvage logging increase. As a result, the ancient forests lose some of their biological integrity and are less likely to retain the characteristics that produce the multitude of benefits associated with old growth.

The Society's study uncovered disturbing evidence that the biological value of much of the remaining old growth has already been compromised. Of the 1.1 million acres of old growth remaining on the six study forests, more than 38 percent occurs less than 400 feet from a road or clearcut edge or is in stands less than 80 acres in size. It is highly probable that these stands have been or soon will be altered by salvage logging, snag felling, blowdown, and penetration of external environmental influences.

A separate analysis of the old-growth landscape reinforces these alarming conclusions. Approximately 37 percent of the remaining old growth occurs in stands less than 400 acres in size that are surrounded by clearcuts, young forest plantations, or nonforested areas. Scientists predict that a landscape of Douglas-fir trees 250 feet in height has no unmodified forest interior conditions left by the time it is 50 percent cut in a theoretical checkerboard pattern of dispersed patches 25 acres in size. This condition is quickly approaching in many of the six study forests.

Given the abysmally small amount of viable old growth left, continued fragmentation of this resource assumes crisis proportions. When a 25-acre clearcut is placed in unfragmented old growth, approximately 35 additional acres are included in the 400-foot edge surrounding the clearcut and are subjected to deleterious edge effects. Thus, 60 acres of old growth are destroyed or significantly altered for each new 25-acre clearcut, effectively increasing the impact of the clearcut in an unfragmented setting by a factor of 2.4.

FIGURE 1: COMPARISON OF OLD-GROWTH ESTIMATES FOR SIX WESTSIDE NATIONAL FORESTS.



* The draft plan for the Willamette National Forest states that an additional 175,000 acres are large mature trees that will qualify as old growth in about 20 years. In this analysis, those additional acres are not included as old growth.

□ RECS USDA Forest Service, Draft land and resource management plans, 1986-1987

▨ The Wilderness Society, Old growth in the Pacific Northwest: a status report, 1988

The situation is exacerbated by road construction. For every mile of road built in unfragmented old growth, some 97 acres of old-growth forest are altered by edge effects. The current road network on the six study forests has penetrated deeply into most old growth stands; more than 52 percent of the remaining old growth is in roaded areas.

On several of the study forests, the amount of unfragmented old growth is already so small that nearly all the remaining old growth could be fragmented in the next few years. In the case of the Gifford Pinchot National Forest, only about 38,000 acres of unfragmented old-growth forest are left. If logging in old growth continues at the current rate and takes place in unfragmented areas, virtually no unfragmented old growth will remain on the forest in less than three years. Quick ends to unfragmented old growth will also occur on many other national forests unless the present course is altered.

Elevation distribution. Only a fraction of the remaining old growth -- about 285,000 acres -- exists on the study forests below 2,500 feet in elevation. Scientific research indicates the rapidly dwindling low elevation old-growth forests are the most biologically diverse; they also provide optimum recreation and educational opportunities due to their relatively easy access, close proximity to human population centers, and longer seasons without snow cover.

The importance of the low elevation old-growth forests can not be overemphasized. These lands are ecologically very different from the higher elevation forests, and the lack of adequate representation of low elevation old-growth habitat will seriously compromise the biological diversity of the Pacific Northwest. Significantly, most of the old growth scheduled for sale in timber sale plans is located below 4,000 feet in elevation.

Old growth in wilderness areas. Only about 31 percent of 1.1 million acres of old growth on the study forests is located in designated wilderness areas and thus is protected from logging. The remaining 69 percent is located in areas that have an uncertain future. Of the protected old growth -- 119,000 acres on the Mt. Baker/Snoqualmie National Forest, 16,000 acres on the Olympic, 8,000 acres on the Gifford Pinchot, 44,000 acres on the Mt. Hood, 105,000 acres on the Willamette, and 60,000 acres on the Siskiyou -- nearly all is at high elevations.

In concluding this section of my testimony, I emphasize that the results of The Wilderness Society's study differ dramatically from the amounts of mature and old-growth forest claimed by the Forest Service in its draft management plans for the six forests. The agency's figures are highly misleading in that they (1) generally include large acreages of mature forest, which do not meet the minimum criteria for old growth; (2) rely on old inventories, which often include stands that have been cut since the inventories were completed; and (3) fail to distinguish between old growth that is ecologically viable and old growth stands that are fragmented and isolated from the greater natural forest due to their proximity to clearcuts, roads, and other changes in the landscape.

In addition, Forest Service regional estimates for Washington and Oregon tend to lump mature and old-growth forests east of the Cascade range with those west of the mountains. While some important old growth remains in the eastern portions of the two states, no scientific definition exists for them. They are quite different than old growth on the west side. Therefore, lumping mature and old-growth forests from both sides of the Cascades is a meaningless exercise.

The primary significance of ancient forests lies in their contribution to regional biological diversity. Old growth is a special stage in forest development, possessing ecological characteristics not present in mature forests. The ancient forests are composed of a complex web of interdependent plant and animal life, with many species present that are poorly represented in younger stands. They have exceptional structural diversity, tremendous biomass, and great horizontal and vertical complexity. This provides critical habitat for many rare species, including marbled murrelets, Vaux's swifts, and spotted owls. Our knowledge of the ecological function of these ancient forests is only in the fledgling stage. We are just beginning to grasp the complexities of structure and the interrelationships between species that inhabit the forests.

We do know that ancient forests provide invaluable reservoirs of genetic and ecological diversity. They are a source for new scientific and medicinal discoveries. The information stored within them will prove beneficial in developing methods to maintain long term site productivity and in preparing strategies to alleviate global warming. To cut the last of these forest is equivalent to burning text books before they are read.

Yet, the Forest Service has made no attempt to address these biological and ecological factors, choosing not to distinguish the amount of old growth (or mature forest) by ecologically important forest types or by critical elevation ranges. Instead, the agency's estimates combine all forest types and elevation ranges giving equal weight to each. The Forest Service's obsession with generalities has thus obscured the important issue of biological diversity.

Mapping the Old-growth Resource

Based on our inventory effort and continued research, The Wilderness Society is gathering additional information that will prove important to the debate over the future of the ancient forest resource. The objective is to prepare a series of maps delineating the amount, location, landscape context, degree of fragmentation, and rate of change for remaining old growth on all 12 westside national forests.

We are nearing completion of the pilot project on the Olympic National Forest. Its several phases are described in Appendix A, attached to this testimony. Preliminary results follow.

Results of Pilot Study

Although The Society's study of the Olympic National Forest is not yet complete, we have preliminary maps and results at this time. The first map illustrates the present distribution of older forest types on the Olympic forest. The map also shows the

amount of forest cut between 1980 and 1982, based on analysis of 1982 aerial photography, and depicts the amount of ancient forest existing at that time. We are in the process of updating this map to an August 1988 status with the aid of satellite imagery.

In the Quinault region of the forest, the portion of the forest with the largest amount of remaining old growth, we have updated cutting to a June 7, 1989 status with the help of Michael Stewart with Project Lighthawk. Through a matrix of aerial photographs we have been able to map all clearcuts that have occurred since 1982. The map does not indicate the location of the current backlog of sold sales. In addition, we have mapped the original extent of ancient forests in the Quinault region through analysis of 1962 aerial photographs and field plot data.

These maps graphically demonstrate the phenomenon of forest fragmentation and its prevalence on this national forest. Most of the remaining old-growth stands are in very small patches bordered by clearcuts or sliced by roads. Large unfragmented ancient forest exists only in a few areas.

We have also mapped blowdowns and trees destroyed by escaped slash burns from 1980 to 1982. During this short two-year period, a disturbingly large amount of forest was lost to these causes. These particular disasters would not have occurred under natural conditions; rather, they are the direct effect of fragmentation -- our unraveling of the ancient forest ecosystem.

What these maps indicate is not unique to the Olympic National Forest. Similar situations -- with more logging and fragmentation in some cases, slightly less in others -- hold on all westside national forests. Many Forest Service employees acknowledge we are courting major ecological disaster if current cutting rates and methods are continued. On forest after forest, agency staff are making it clear that the present cutting levels can not be maintained without violating the laws governing Forest Service management. The current dilemma is a direct result of serious overcutting on industry, state, and federal lands for decades.

(Attachment follows:)

APPENDIX A: THE WILDERNESS SOCIETY OLD-GROWTH MAPPING PROJECT -- PILOT STUDY: OLYMPIC NATIONAL FOREST

The Wilderness Society is completing a series of maps denoting the amount, location, landscape context, degree of fragmentation, and rate of change of old growth on six national forests in the Pacific Northwest (Washington and Oregon). This endeavor has benefitted from the considerable assistance of Forest Service personnel in developing methodology, obtaining materials and data, and reviewing the project.

A pilot study is nearly finished for the Olympic National Forest on the Olympic Peninsula in northwestern Washington. The several phases necessary to complete the study are described below.

Phase One: Analysis of Field Plot Data. The initial step in the study required an analysis of timber inventory plot data and forest ecology plot data collected by the Forest Service. This data comprises about 2,000 field plots. The Wilderness Society summarized all available information on characteristics used to define old growth according to the interim definition of the Forest Service's Old Growth Definition Task Force. The Society then screened the plots and selected those that had the minimum characteristics necessary to qualify as old growth using the task force's definition.

Phase Two: Photointerpretation of Stands. A set of the selected plots was located on aerial photos, and the stands that contain the plots were delineated on the photos. These stands were photointerpreted to ensure that the plots are representative of the whole stands in which they occur. The aerial photos of the stands were then used as photo keys in subsequent phases of the study.

Forest characteristics, as determined by photointerpretation, were recorded for all the reference old-growth stands used in the photo keys. Characteristics noted included the number of canopy layers, crown closure by canopy layer, presence of snags and broken tops, canopy diameter, distribution of tree crowns, and shadow patterns.

A map of probable old-growth areas was developed utilizing the photo keys described above. Areas that matched or exceeded the characteristics on the photo keys were identified using stereoscopic photographic comparison of aerial photographs to the photo keys for the closest reference stand. Boundaries of areas that matched or exceeded the characteristics of the photo keys were drawn on clear mylar overlays on orthophoto quads. Areas were mapped to a five-acre minimum. In borderline areas or areas that were difficult to interpret, photointerpretation was used to analyze characteristics that were determined to serve as the best predictors of old-growth status.

Phase Three: Field Verification of Selected Areas. The Society conducted limited field verification of selected areas that were mapped. Verification focussed on on borderline areas and included detailed evaluations of stands using fixed radius plots and stand walkthroughs to assess old-growth characteristics.

Phase Four: Digitizing of Maps. Maps resulting from the first three phases were digitized into a computerized mapping system. Use of this system enabled The Society to analyze the condition of the forest in numerous ways and can produce maps for presentation.

Phase Five: Updating to 1988 Status Using Satellite Imagery. The Wilderness Society purchased an August 1988 LANDSAT multispectral scanner satellite image of the Olympic Peninsula. We are using digital image processing techniques to analyze this image and will update our maps to reflect logging that has taken place since 1982. The end result will be a map of older forests as of August 1988. We are also investigating the use of satellite imagery to aid in the mapping of older forest stands and to distinguish old growth from mature forests.

Phase Six: Test Overflight of Quinault Ranger District to Ascertain 1989 Status. Michael Stewart of Project Lighthawk assisted in overflights of the Quinault Ranger District on the Olympic forest in order to take aerial photographs of the entire district. The purpose was to obtain photographs allowing an update of the maps to current status. We have combined our estimates from our inventory project with other estimates obtained by state and federal agencies to determine the amount of ancient forest left on all ownerships in western Oregon and Washington. Less than 2.4 million acres of ancient forest exist of which only 800,000 acres are currently protected in wilderness, national parks, Research Natural Areas, or state parks. Of the 1,600,000 acres of unprotected old growth, approximately 56 percent is highly fragmented. (The flight also enabled The Society to compare costs and benefits of this updating method with those of satellite imagery.)

Phase Seven: Use of Early Aerial Photos to Map Original Forest Condition. The Society is in the process of mapping the original extent of ancient forests in the Olympic National Forest. To accomplish this, researchers obtained aerial photographs taken in 1962. Although some cutting occurred prior to that date, analysis of these photographs and field data will allow us to determine the original condition of the forest.

Phase Eight: Analysis of Maps. The Society is using a computerized mapping system to analyze the extent of the older forest types in the Olympic National Forest and the distribution of these older forest types on the landscape. Factors to be considered are distribution with respect to elevation, landscape context, edge effects, patch size distributions, and the degree of fragmentation.

STATEMENT OF CHARLES SISCO
WILDLIFE BIOLOGIST/FORESTER
NATIONAL AUDUBON SOCIETY
BEFORE THE HOUSE AGRICULTURE SUBCOMMITTEE
ON FORESTS, FAMILY FARMS, & ENERGY and
THE HOUSE INTERIOR SUBCOMMITTEE ON NATIONAL PARKS & PUBLIC LANDS
WASHINGTON, DC
JUNE 22, 1989

Mr. Chairman, my name is Charles Sisco, forester and wildlife biologist for the Western Region of the National Audubon Society. My background on the old growth issue began in the mid-1970's when I worked as a forester with the US Forest Service in western Montana and northern California. My primary job was laying out timber sales and clear cuts in old growth timber. At the time, I viewed old growth as decadent timber, in need of cutting in order to replace these older forests with young, vigorous and healthier second growth trees. These perceptions on forest management and old growth were framed in my early forestry career with the Forest Service, and through forestry school. I left the Forest Service in 1979 because we were being asked to cut timber in violation of the law; cutting timber in excess of sustained yield and clear cutting on sites where young trees could simply not survive once they were planted. In 1979 I returned to college where I completed a BS degree in Zoology and began a four year Master's research study on the Spotted Owl for the US Forest Service in Northwestern California. By 1979 this was only the second indepth study of habitat use and ecology of the spotted owl in the Pacific Northwest. From 1984 until 1987 I worked as a consultant to both federal and state agencies in inventory and habitat protection of the spotted owl. I gave input on the design of spotted owl networks for the Forest Service during this time and made recommendations to the Washington Departments of Natural Resources and Wildlife as well as the National Park Service regarding spotted owl inventory and habitat protection for the species on the Olympic Peninsula.

Over the past three years I have been employed by the National Audubon Society in monitoring Forest Service and BLM old growth logging with respect to the spotted owl issue and National Forest Management Act (NFMA) regulations. My experience with conservation groups both inside and outside the Forest Service led me to persuade Audubon to begin mapping the remaining timber stands, owl locations, and designated owl habitat the agency had set aside as old growth. This information was desperately needed in order that groups like Audubon and others could determine how the agencies were complying with NFMA. We began by mapping all 13 National Forests that contained spotted owls in Oregon and Washington, and 8 forests in California by late 1986. I will present a sample of our maps and share our findings with the committee here today. We have uncovered what we feel is a serious failure by the Forest Service to comply with the diversity regulations as mandated by NFMA. It is important to state for the record that it was the evidence of these maps taken from Forest Service ranger districts that indicted the agency in its own failure to comply with NFMA and regional guidelines. This lack of compliance eventually led National Audubon to seek legal action in order to require the agency to comply with the laws that Congress has mandated.

Today, I would like to thank the committee for the opportunity to testify on one of the greatest public land challenges before the Forest Service and BLM in many decades. If you come away from this presentation with three basic lessons, I would hope that they would include the following:

First, the enactment of the National Forest Management Act in 1976 mandated the protection of old growth forests via the spotted owl as the indicator specie. Implementing forest plans would protect these sites as they were identified on the ground.

Second, the Forest Service has been unable to implement the forest plans, protection for the spotted owl or old growth because the appropriations process dictates, via the Resource Planning Act and the Administration's budget, a much higher level of timber harvest than what can be sustained from the National Forest today.

Third, as a result, the agency has moved protected sites for owls, set aside inadequate habitat, logged in spotted owl management areas, while maintaining historical timber cut levels. All of the latter have led to the current lawsuits and to the eventual listing of the spotted owl under the Endangered Species Act.

History of Legislation for Old Growth Protection

Before I begin by showing specific examples of our mapping project and some of our findings on individual National Forests, I would like to address some of the history behind the current old growth crisis and controversy surrounding the spotted owl. I would like to begin by addressing why the Forest Service is mandated to protect old growth forests and why the agency selected the spotted owl as their management indicator species back in 1978. Under the National Forest Management Act, (commonly referred to as 'NFMA') passed by Congress in 1976, the Forest Service mandate in multiple-use management of the National Forests was significantly changed. Among some of the major changes brought by NFMA, including the selection of indicator species for unique ecosystems like old growth forests, the new law required the Forest Service to prepare forest plans, and that forest plans should be in place by the early 1980's for all National Forests in the country. The forest plans were to address major policy decisions such as sustained yield or the amount of timber that could be produced year to year into perpetuity without causing timber shortages in future decades or loss of long-term site productivity due to soil erosion. Other aspects of NFMA and the forest plans included removing from the timber base areas needed for protection of riparian habitat for anadromous fish, wildlife habitat for sensitive species such as the spotted owl in the Pacific Northwest and the endangered red cockaded woodpecker in the Southeast and Texas. The end goal of NFMA and the forest plans was to find a balance between timber production and other multiple-uses on the National Forests, including dispersed recreation, ORV use, visual quality, wildlife and fisheries habitat, and of course old growth protection.

By 1989, Mr. Chairman, most of the National Forests in the country had complied with NFMA and completed their final forest plans except two critical regions, Region 5 covering California forests and Region 6 covering national forests in Oregon and Washington. Only one of the 13 national forests with spotted owls in Region 6 has completed their final management plans to date, nearly 15 years after Congress passed the NFMA in 1976. In these three states the National Forests cut over 65% of all the timber harvested by the Forest Service nationwide, in excess of 6.5 Billion Board Feet last year alone. Why were these forest plans delayed, and what role has this delay played in the current crisis facing the Forest Service over old growth protection and the spotted owl?

The delay in forest plans for Oregon and Washington was not the sole doing of the Forest Service directly, but in our view caused by Mr. John Crowell, who in early 1980 was appointed undersecretary of the Department of Agriculture, and delegated by the Reagan administration to oversee broad policies with regards to the Forest Service. Mr. Crowell,

prior to his appointment as undersecretary of Agriculture, was general counsel for the Louisiana Pacific timber corporation. One of Mr. Crowell's first actions as overseer of the Forest Service was to order a complete reanalysis of all forest plans in the Pacific Northwest. Prior to Mr. Crowell's order and the Forest Service compliance, conservationists had expected the forest plans to be released for public review in late 1981 or early 1982. A point not missed by Mr. Crowell, nor the timber industry which was requesting record harvests from the National Forests in the Pacific Northwest at the time, was a dramatic drop in the sustained yield cut levels from the proposed forests plans in Region 6 in order that the Forest Service comply with the NFMA. This drop amounted to nearly 20% of the historic cut levels in Region 6, a reduction of nearly 1.2 Billion Board Feet for Oregon and Washington. This drop was necessary for National Forests due to past overcutting and the implementation of new standards and guidelines mandated by the Congress in the NFMA. The critical components of the forest plans that reduced sustained yield and the timber base acreage under NFMA were areas assigned for riparian protection, roadless areas-dispersed recreation, visually sensitive areas near national parks and major highways. The most controversial of all the reductions in timber base acreage was old growth timber set aside for the indicator species, in this case the spotted owl.

In order to implement the NFMA guidelines on old growth protection, the Forest Service first had to pick the indicator species for old growth and then decide how much habitat and where that habitat would be located in each National Forest. NFMA guidelines required the Forest Service to maintain a viable, breeding population of the indicator species through time. This also would maintain a viable population of owls under the NFMA and prevent listing species dependent on old growth under the Endangered Species Act. In the case of old growth, the spotted owl was chosen by the Forest Service as the indicator species. Since the owls apparently required large amounts of old growth, the agency assumed that timber set aside for the owl would prevent other species from becoming endangered as well. We have since learned that setting aside fragmented stands of old growth for a single avian species capable of flying over large areas does not necessarily ensure that other species dependent on old growth will benefit too.

Since the primary aim of the Forest Service, through industry lobby efforts, has been to maintain current timber cut levels, the agency was faced with a dilemma; how to maintain timber targets under the Resource Planning Act yet remove enough old growth to maintain a viable population of owls on the national forests. This major hurdle for the Forest Service to

overcome involved the determination of a minimum viable population of spotted owls for the Pacific Northwest. Since no research was available on how many spotted owl constituted a viable population, the agency turned to genetic research on fruit flies. Research on fruit flies indicated that for populations below 500 individuals, genetic drift caused by inbreeding, resulted in the collapse of the remaining fly population. Citing this research and the recommendations of Dr. Soule, in his book 'Conservation Biology', the Forest Service decided that 500 sites, called spotted owl management areas or SOMAs, would maintain a sufficient population to prevent extinction on the 13 National Forests in Oregon and Washington that contained owls.

The amount of habitat and the number of SOMAs were assigned to individual ranger districts based on the amount and distribution of old growth that remained and supposedly where spotted owls had been observed. The allocation of old growth for SOMAs located on managed timber lands, however, was never removed from the timber base in order that a corresponding drop in the timber targets could be made. Since none of the forest plans were in place, the agency continued to harvest timber at record levels and to this day continues to cut primarily old growth based on timber unit plans from the early 1970's. These outdated timber unit plans allocate no old growth for spotted owls, nor protection for riparian areas, visual quality zones, or other amenities as required by NFMA. The agency has continued to cut old growth timber at historic, record levels and on many national forests within the SOMAs themselves, even though the timber base had been reduced in order to provide for spotted owls.

Even without the forest plans some timber lands had been withdrawn unofficially for other amenities of the forest. For example, riparian areas and forested buffers along streams were withdrawn from the timber base in order to provide protection for spawning salmon and steelhead. Old growth for spotted owls and other species such as pine marten and pileated woodpeckers had been withdrawn from specific areas, called SOMAs or spotted owl management areas. We had assumed that the agency would never enter these areas to log. Yet with all these withdrawals that substantially reduced the timber base and sustained yield on the national forests, reductions in timber targets from Congress never occurred. In fact, even higher cut levels were passed on to Region 6 in the mid to late 1970's despite these unofficial reductions in timber base acreage as required by NFMA. New sustained yield levels would eventually come out in the awaited forest plans in order to deal with those withdrawals, but

until they are officially released the timber targets are allowed to exceed sustained yield by at least 1.5 -1.7 Billion Board Feet annually.

How were Spotted Owl -Old Growth sites and habitat identified?

Identifying spotted owls sites or SOMAs within the National Forest networks, and what constituted suitable owl habitat, was left to the discretion of individual forest supervisors and his district rangers. Broad guidelines on these latter topics were provided by the Forest Service's Regional offices in Portland, Oregon (Region 6) and in San Francisco, California (Region 5) under what was then called the Spotted Owl Management Plan. By late 1979 the 13 National Forests in Region 6 that would implement this plan lacked wildlife biologists at the individual ranger districts, necessary to find spotted owls and delineate old growth within the boundary of individual SOMAs. As a result, many of the SOMA networks were setup by timber staff with little or no knowledge of where spotted owls were found, let alone what the species would require through time. As late as 1981 most SOMAs contained only 300 acres of suitable owl habitat, despite research and recommendations by the Washington and Oregon Departments of Wildlife that the owls needed much more old growth to survive. As late as 1978 research conducted by Dr. Eric Forsman at the Oregon State University under contract to the Forest Service indicated that spotted owl pairs ranged over broad areas of forested habitat, averaging in excess of 6000 acre home ranges, and containing 2200 acres of old growth forests. In Washington state a study completed by the Department of Wildlife on contract to the Forest Service indicated even larger areas of use, with old growth averaging 3800 acres per owl pair.

Congressional timber targets through the late '70s and early 80's maintained high cut levels on all Pacific Northwest National Forests and meant that if targets where to be met, spotted owls and old growth would need to take a back seat along with the release of forest plans. By 1979 the Forest Service had allocated only 300 acres for each SOMA on the managed timber lands. Nearly one-third of the 500 SOMAs thought to be needed to maintain a viable population of spotted owls (and prevent listing under the Endangered Species Act) were found in designated wilderness areas. By designating SOMAs and habitat in wilderness areas, fewer sites would be needed on the managed timber base, thus lessening old growth withdrawal on managed timber lands. Unfortunately, as repeated surveys have borne out, few of these wilderness SOMAs were ever occupied by the owls. Surveys completed in 1987 found that fewer than 25% of the wilderness areas set aside as SOMAs contained spotted owl pairs.

In 1984 the National Wildlife Federation appealed the Forest Service Regional Guide. Questions as to the application of using fruit fly research for larger vertebrate species such as owls, the lack of habitat protection and the inadequacy of many of the SOMA networks, plus the increased clear cutting of old growth within many sites occupied by spotted owls led to the appeal. The appeal charged, among other things, that Region 6 of the Forest Service had inadequately assessed what a minimum viable population of the indicator species was (as required by NFMA), and that in the absence of forest plans the various National Forests were continuing to log old growth where spotted owls were found. Among their findings, the National Wildlife Federation appeal had noted that the minimum viable population figure of 500 pairs that the Forest Service had used was based on the effective population for a particular species. Effective populations are many times less than the required minimum population size, since the effective population is assumed to never decrease (no mortality); therefore, no disease or predation, nor loss of habitat by fire, windstorms or through logging and fragmentation of old growth was considered. Over a decade ago the Forest Service had made a fatal flaw in assuming that the effective population of 500 pairs would be sufficient to prevent extinction. The agency has also assumed that all 500 SOMAs would be occupied and contain breeding pairs of spotted owls, another assumption of the effective population model. In all the SOMAs checked last year in Washington state west of the Cascades not one breeding pair of owls were found.

On March 8, 1985 Doug McCleary working under John Crowell in the US Department of Agriculture in charge of the Forest Service, upheld the National Wildlife Federation appeal and directed the Forest Service to prepare a supplemental EIS to the Regional Guide. In his direction to the Chief of the Forest Service, Mr. McCleary spelled out what should be addressed in the supplement, including how the minimum viable population was derived. The Department also addressed the need for an inventory of spotted owl habitat and old growth in the Pacific Northwest. For the first time the Forest Service was put on notice that an inventory of old growth and suitable owl habitat was needed and that a clear distinction between the two had been made. I will return to this point further in my discussion of our findings once we began to map suitable owl habitat and old growth. A very large discrepancy between the old growth acreage and the amount of suitable owl habitat that remained on the national forests in the Pacific Northwest had been discovered; the discrepancy over how one defines old growth and how one defines suitable owl habitat was at the center of the acreage difference.

By 1986 the Forest Service had increased the amount of habitat to 2200 acres per spotted owl habitat area, but occupancy of the SOMAs was still very low. Surveys in 1986 indicated that less than 30% of the sites protected were occupied by owl pairs and breeding success on these sites was extremely low. Suitable owl habitat varied on many forests, from no old growth or mature forests in the SOMAs to other forests setting aside more than their allotted SOMAs as backup sites. On one national forest that I will illustrate with maps, the districts with little old growth left were allowed to establish what was then known as capable SOMAs, sites with no suitable habitat or owls at all. In theory the sites would become suitable owl habitat 200 or more years later. Unfortunately these sites were included in the minimum viable population estimate of 500 pairs, and since they had no owls or habitat contributed nothing to the viability of the spotted owl populations overall. On other forests the districts often overlapped two adjacent "SOMA" boundaries, thereby counting the acreage twice, and reducing the impact on the remaining timber base.

On the Wenatchee National Forests only paper SOMAs were established. In other words, although the Forest Service said they were protecting habitat, the areas protected were only on paper or maps. When I checked the Wenatchee NF network in late 1987, I found timber sales in every area set aside for spotted owls on the Naches Ranger District. A total of 13 SOMAs had lines drawn on maps but no habitat was actually protected on the ground. This situation was only reversed recently when National Audubon Society threatened a lawsuit in the BAKEOVEN timber sale that would have removed the nest grove and core area within the 2200 acres set aside for the owls. A similar situation existed on timber sales on the Olympic National Forest. Two SOMAs in capable habitat where no owls were ever found, had to be relocated to occupied sites in 1986. In this case a recently sold timber sale was allowed to proceed even though the clear cut units would remove the nesting site. Audubon again was forced to go to court, after notifying the Forest Service over a 2 year period that this area had been found to contain owls and that the relocation of the capable SOMAs was necessary. The cancellation of the BOGYII timber sale due to this failed policy cost the American taxpayer over \$500,000 to settle with the timber purchaser who had bid on and won the timber sale.

Keep in mind that during this period approximately 375 SOMAs were established on the managed portion of the national forest timber base in Oregon and Washington. Averaging 2200 acres each, nearly 800,000 acres of timberland was 'quote' protected as quote 'suitable owl habitat'. Timber targets for the 13 national forests with these set asides, however, were never reduced to reflect the timber removed from the sustained yield base. According to the

Forest Service Supplemental EIS, this amount of timber would have reduced the yields in Oregon and Washington state by over 200 million board feet annually. Therefore, the only way the agency could maintain the inflated timber targets and cutting levels sent down from Appropriations via the Reaga budget, was to log old growth where owls were found and set aside SOMAs in inferior habitat where owls were not found. As observed by the Audubon Blue Ribbon Panel Report, there was no accountability factored in to the spotted owl plan at the local level of the Forest Service. As a result the agency had owls without protection or SOMAs and SOMAs without owls.

In 1987 projections on spotted owl population levels indicated the species was headed for extinction at the current rate of habitat loss and fragmentation, especially in isolated portions of the range on the Olympic Peninsula and the Oregon Coast Range. The Audubon Blue Ribbon Panel, commissioned in 1986 by National Audubon Society, also found that minimum population levels the Forest Service said would maintain the spotted owl to be invalid and without any scientific basis. The commission recommended that the Forest Service maintain at least 1500 breeding pairs of spotted owls through time. Soon after this report the Forest Service released their draft supplement EIS on the spotted owl. The guidelines called for 550 sites to be identified as spotted owl management areas, and that 375 of these sites would be protected on managed timber lands. A total of 2200 acres would be retained for each of the 550 sites. Unfortunately, only 1000 acres of timber would be removed from the timber base for each of the 350 SOMAs on managed timber ground. The balance of 1200 acres of the 2200 acres protected would not be removed from the timber base, even though these areas were protected from timber cutting.

It became apparent to many conservation groups by late 1987 that what had occurred since 1976 in passing NFMA was an incredible stall tactic on the part of the Forest Service and a major effort by the timber industry to prevent implementation of the NFMA guidelines as passed by Congress. There were no longer options available to many national forests to protect even those sites chosen for spotted owls and old growth while meeting the timber targets mandated via the appropriations process and the RPA (Resource Planning Act 1974). Since the passage of the NFMA the Forest Service had requested budgets and timber targets averaging 5 Billion board feet, while implementing the forest plans in the Northwest would have meant a substantial decrease to 3.7 Billion Board Feet in 1982. This figure today, since the harvest of old growth has continued unabated, now rests below 3 Billion board feet., annually.

In early 1987 the timber industry appealed the minimum management requirements that the Forest Service was about to implement in the upcoming forest plans. This delayed the release of the forest plans once again for nearly two years. It became perfectly clear to conservation groups that there was a good possibility that we would never see final forest plans in the Pacific Northwest due to these delay tactics. The Forest Service budget for the timber sale program continued unabated at over 5 Billion board feet, while draft forest plans were calling for annual cut levels of less than 4 Billion board feet to stay on sustained yield.

An inventory of true old growth, undertaken by the Wilderness Society in 1988 showed dramatic drops in old growth inventories reported by the Forest Service in both draft forest plans and the spotted owl EIS. Some national forests actually increased the acres of old growth from initial inventories in 1986 to 1988. On the Wenatchee national forest, the estimate in 1986 was approximately 140,000 acres of old growth; by 1989 that number had soared to over 450,000 acres in only 2 years. The number of old growth acres had never changed. What had changed was the definition of old growth. Now the national forests were calling all suitable owl habitat old growth, when in fact very few acres qualified as old growth under the Forest Service's own regional guide or their scientific study of old growth completed back in 1979. In fact, the definition of old growth on the Wenatchee and Olympic National Forest according to the maps we obtained from the districts and those guidelines spelled out in the forest plans indicated that trees as small as 11" in diameter and less than 100 years old were considered old growth by these two forests.

In addition, we found through our mapping that a number of areas set aside for spotted owls either contained no old growth or no suitable owl habitat, or in the case of the Wenatchee National Forest, the SOMAs were never established on the ground. The Wenatchee National Forest had established what we now refer to as the paper SOMA network, with lines drawn on maps but actual habitat never protected on the ground. In one district I surveyed in 1987, 9 out of every 10 proposed SOMAs I checked had either a sold, or soon to be sold, timber sale within the core area of the SOMA where the owls had been found. In a survey completed by the Washington Department of Wildlife in 1987, fewer than 20% of the SOMAs checked had owl pairs occupying the habitat set aside by the Forest Service. In some instances on the Olympic National Forest timber sales were cut, even after owls had been found within the clear cut units within the core area of the SOMA. In this case I am referring to the Goodman Creek SOMA on the Soleduck Ranger District of the Olympic National Forest.

This litany of misjudgments on the part of the agency was not isolated to one or two national forests. The problems with finding owls, protecting occupied habitat, and providing options for the management plans were widespread. In our efforts to change the SOMA locations and sites not protected by the network, to prevent timber sales and clear cuts in nest groves and core areas within the 2200 acre allotment, and our requests to the Forest Service at all levels to meet the guidelines under NFMA all met with failure. Our remedies within the administration of the Forest Service had been exhausted, and our efforts to trim the timber targets downward through the appropriations process here in Washington DC, also met with failure. It was this exhaustion of both local efforts and national efforts here, that led Audubon and others to request the US Fish & Wildlife Service to list the spotted owl under the Endangered Species Act in 1987. In a court ruling just months ago that reversed the US Fish & Wildlife Service finding that the spotted owl was not endanger of extinction, we now have a process under which significant habitat protection can be afforded the species.

We discovered much to our dismay, that the US Fish & Wildlife Service was not immune to the political process any more than the US Forest Service. In an independent analysis of the agency's politicizing of the listing process and status review, the Government Accounting Office concluded that the US Fish & Wildlife Service administration had significantly altered scientific data with regards to recommendations of their biologists that the owl was indeed in danger of extinction. This again required the conservation groups to return to the federal courts to enforce the law as it pertains to the Endangered Species Act. The agency is now in conferencing with the US Forest Service to determine whether or not the Forest Service has set aside adequate habitat for the spotted owl.

During this same period, the Forest Service released a number of draft forest plans and has released the Supplemental EIS on the spotted owl for Region 6. This document was altered significantly from the draft that was released in 1986. The document was five years in the making from the time the appeal had been filed with the Chief of the Forest Service in late 1984 by the National Wildlife Federation. The changes in the document included a reduction in habitat area for SOMAs (now called SOHAs or spotted owl habitat areas) and a decrease in the number of SOMAs on the managed timber lands. Both the reduction in numbers of SOMAs and the reduction of old growth to be set aside for the owls in each site resulted in the appeal of the EIS to the Chief of the Forest Service. The timber industry also appealed the Chief's decision and filed suit in federal court in Portland, Oregon and Seattle, Washington to

force the agency from adopting the guidelines, as required by NFMA. One day later 18 conservation groups, Mr. Chairman, National Audubon Society amongst them, filed suit, as well in federal court.

National Audubon Society & the Mapping Project

Now that I have covered the extensive history behind this controversy and outlined for the committee how we have arrived at this point in time, I would like to discuss our mapping project and give some case examples on how the Forest Service went about protecting old growth and spotted owls on the Olympic National Forest. As I have mentioned before the Forest Service has never completed an inventory for old growth in the Pacific Northwest, although we understand one is underway on several national forests now. Up until Audubon began the mapping project the Forest Service maps on suitable owl habitat were unavailable, and therefore conservationists concerned about the agency handling of the old growth issue was constantly in question.

We began by mapping the more critical forests first, for example, the Olympic National Forest in Washington state. We currently are mapping on 93 ranger districts in Washington, Oregon and California, obtaining only Forest Service information for our map work. Our maps include the current status of clear cuts and timber stands in various age and size classifications. We also include the timber sale program on each ranger district of each national forest. Overlays include the current locations of the SOMAs. Once we began to map the suitable owl habitat and areas that the Forest Service wanted to protect for the spotted owl we began to find significant problems with the spotted owl network. As I described earlier, many owl sites or SOMAs had no spotted owls in them and insufficient habitat to support an owl pair. Many SOMAs had timber sales either sold or about to be sold in the district's five year sale program.

On the boards in front of you are maps of the Olympic National Forest, located on the Olympic Peninsula of Washington state. This forest forms a doughnut around the Olympic National Park, as you can see by the map on the far left, the park being located in the center of the peninsula. In the northwest corner of the Olympic National Forest is the Soleduck Ranger District and below this is the Quinalt Ranger District, two of the five districts on the forest. The Olympic National Forest was originally allocated 17 SOMAs in late 1978 for their portion of the 500 SOMAs to be maintained region wide in Oregon and Washington, in order to

comply with a minimum viable population standard under NFMA. This number was soon increased to 29 SOMAs, and 7 of the 29 sites were allocated to the Soleduck Ranger District. During this period of time the Olympic National Forest was cutting nearly 300 Million Board Feet of timber a year, and 90 Million board feet were coming off the Soleduck District.

In order to implement the timber targets for the Olympic National Forest, the district staff located the SOMAs in areas where they would least impact the timber program, for example in roadless areas like the Rugged Ridge SOMA and the two 'capable' SOMAs on Snider Ridge. Neither of the capable SOMAs on Snider Ridge contained suitable owl habitat or owls when the network was established, but the regional guide allowed these sites to be selected to supposedly meet the spacing criteria between SOMAs (6 miles between single SOMAs and 12 miles between clusters of SOMAs). In 1984 the owl pair in Goodman Creek was found and the nest grove and young owls discovered in the center of a timber sale that was about to be logged. The timber sale had been lawed out in the center of the core area of the SOMA, some years back, and instead of relocating the timber sale, the SOMA boundary was simply changed to accommodate the clear cut units.

In 1986 while working for the Washington Department of Wildlife I happened onto a map of the SOMA network and the Snider ridge sites. Knowing that there were no owls and no old growth, we attempted to change the location of the two capable SOMAs but failed to convince the Forest Service to do so. The area just east of Forks, WA in the Elk Reade block of the Soleduck offered the best opportunity for a new SOMA site due to large tracts of old growth that remained and a high concentration of owls in the area. As with the Goodman Creek SOMA, however, a number of very large timber sales had been planned in the area where the owls had been found. We asked the Forest Service to relocate the Snider Ridge SOMAs again and relocate the planned FY1988 timber sales. This all occurred in 1987, and was supported by the Washington Department of Wildlife.

In 1988 the timber sale was offered for sale, two years after our initial negotiations on the BOGYII and LONER ELK timber sales had begun. We appealed the timber sale along with the Washington Department of Wildlife in 1988, and the Forest Service denied our appeal. We then went to federal court to stop the award and offering of the timber sale. In the interim the Forest Service had discovered that a nest grove was near or within one of the BOGYII timber sale units. At this point the Forest Service decided to cancel the timber sale, which cost the taxpayers \$\$500,000 since the contract for the timber had already been awarded to the

logger. Today the Forest Service has relocated the SOMA within this area, but has not placed the timber within the BOGYII timber sale within the area required for the owls. The sale was to be offered once again this year, along with LONER ELK until the injunction stopped the sell of old growth from this area.

Today the Soleduck has increased the number of SOMAs on the district from seven to nine. You will see on the overlay how these SOMAs have shifted over the years in order to comply with an ever changing and ever shifting set of directions from the regional office. A point to make on the most recent network, which was established as a result of the new spotted owl Supplemental EIS released in December of last year, is the removal from the network of key SOMAs, some of the few, by the way, that contain breeding spotted owl pairs. The Rugged Ridge SOMA and the Pine Mtn SOMA both contain spotted owl pairs and high quality, low elevation old growth. As you will see, however, in the timber sale overlay a number of clear cut units and timber sales were planned for these SOMAs. In order to accommodate the timber sales and maintain the required cut level necessary to meet the timber targets these SOMAs had to be dropped from the network.

On the Rugged Ridge SOMA, for example, I discovered in 1987 that two timber sales would log a significant portion of the nest grove area. The COUNT ZEPPLIN and GELATNOSUM TIMBER SALES, planned for FY 88 and 89 were in the center of the SOMA. One unit of the Count Zeppelin sale was only 100 feet away from a spotted owl nest tree. In order to keep the Count Zeppelin sale in the timber sale pipeline, four large chunks of old growth including the nest grove were removed from the SOMA and moved nearly two miles north to another drainage, in order to comply with the guidelines to maintain 2200 acres of habitat. When the new regional guidelines came out last December that required the Olympic National Forest to increase the size of SOMAs to 3000 acres, the district switched the SOMA locations along Rugged Ridge and moved them north to the Hunger Mtn. site. The Hunger Mtn. SOMA, Mr. Chairman, is higher elevation and poor quality habitat with little old growth present. Spotted owls have never been found in this area. In this case we have lost a breeding pair of owls in prime old growth and replaced the site with no owls and poor habitat.

What was even worse, Mr. Chairman, the Forest Service had to cancel three timber sales in order to accommodate the new SOMA location and keep the COUNT ZEPPLIN timber sale in the FY89 program. Agency actions such as these led us to file our lawsuit and appeals of these shell games. I could point to many other horror stories up and down the Pacific

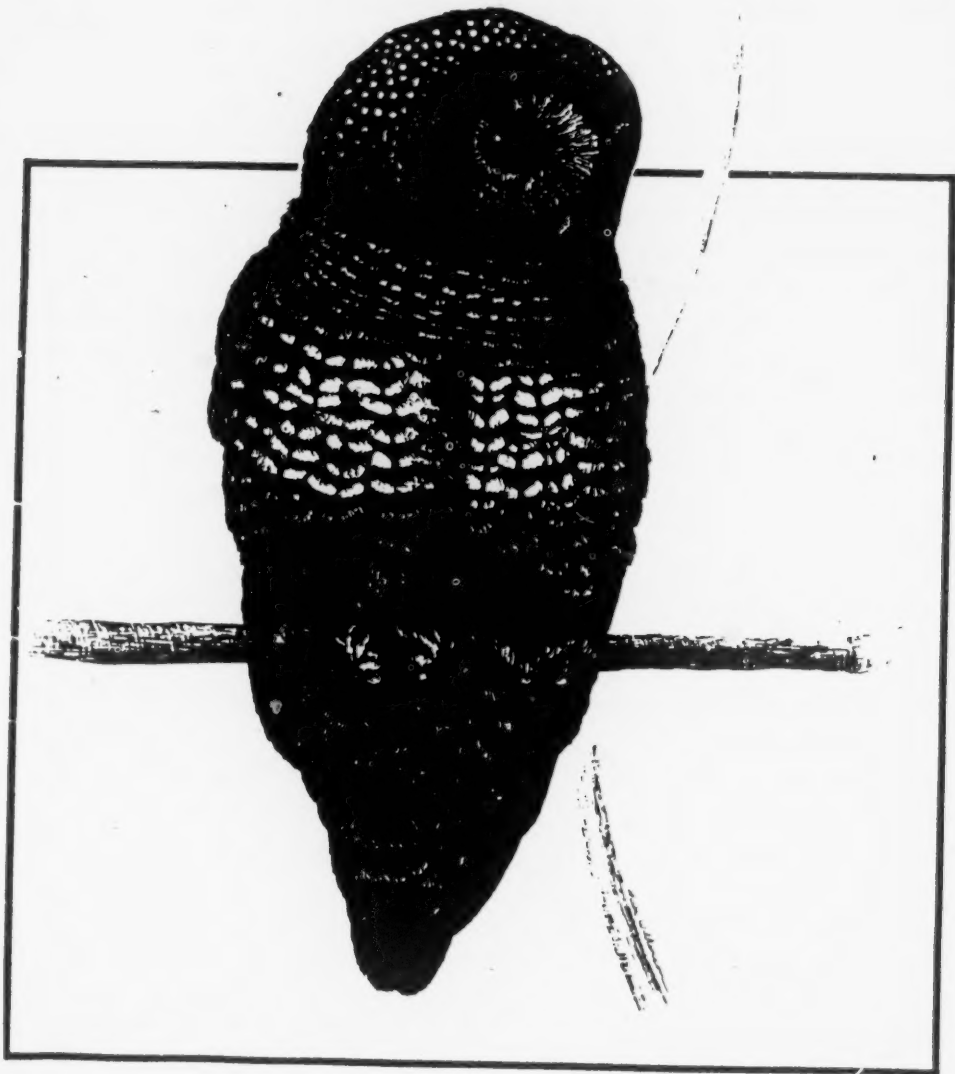
Northwest. The simple message, Mr. Chairman, is that the Forest Service cannot implement adequate protection for the spotted owl and old growth, comply with NFMA and keep cutting at the current levels and timber targets as they have emerged from the Appropriations process. The Olympic National Forest over the past decade has been averaging approximately 230 Million Board Feet of timber sold each year.

Today, the Olympic National Forest is offering only 113 Million Board Feet for sale, and the difference will no doubt be made up on some other unlucky national forest in Oregon and Washington. Had the Forest Service implemented a viable spotted owl network in 1978, and a corresponding drop in the timber targets made, the adjustments for timber harvests, for mill supply and employment, and a major expense in the planning process and the federal courts could have been avoided. The forest plan on the Olympic National Forest is now gutted, with a loss of millions of dollars in agency time and taxpayers dollars. The merry-go-round has stopped on the Olympic National Forest, but at a tragic cost to agency morale and timber sale planning. Numerous sites with spotted owls sites have no doubt been lost by neglect through this tragic process. It will be only a matter of time before other forests are forced to get off the merry-go-round and reach timber targets that are both realistic and meet NFMA guidelines, while maintaining a steady flow of timber from the National Forests. Until that time occurs, one unique ecosystem species will continue to be endangered in the Northwest, the old growth, ancient rain forests of the Pacific Northwest. We still believe it is possible to accomplish both goals, Mr. Chairmand, but we must act soon to change the present course of management on our Nations' forests.

(Attachment follows:)

Audubon Conservation Report No. 7

Report of the Advisory Panel
on the
SPOTTED OWL



Foreword

We are pleased to present this report from the Advisory Panel on the Spotted Owl that was jointly appointed by the American Ornithologists' Union, the Cooper Ornithological Society and the National Audubon Society. This project was initiated by the National Audubon Society in an effort to enlist the best available scientific advice to help guide our organization's program and policies pertaining to the management and conservation of the Spotted Owl.

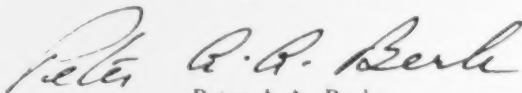
The Advisory Panel was composed of distinguished ornithologists and ecologists known for their acknowledged expertise and their unquestioned integrity and independence as biologists. None has spoken previously on the complex matters of Spotted Owl conservation.

The panel was given a three part charge to: (1) assess the status of the Spotted Owl insofar as current information allows; (2) specify priorities for future research; (3) identify management strategies that would assure maintenance of a viable population of Spotted Owls over the long-term. We believe the panel has met this charge well. Through their thoughtful and independent deliberations they have issued a compelling statement on both the Spotted Owl today and its prospects for the future.

We are particularly indebted to the Panel's Chairman, William R. Dawson of the University of Michigan for guiding the Panel's activities through the mass of information and conflicting views as to what must be done to ensure the survival of this inconspicuous yet controversial species.

The National Audubon Society believes the public debate over the future of the Spotted Owl will be well-served by these findings. We strongly endorse the recommendations of the Advisory Panel. We call upon all interests including government, industry, the public, and the environmental community to engage in meaningful dialogue that will result in decisions which preserve the Spotted Owl as a functional member of the ecological community in which it evolved.

We wish to gratefully acknowledge the private, anonymous donation which has made the activities of the Advisory Panel and this report a possibility.



Peter A. A. Berle
President
National Audubon Society

New York, New York
May 1986

The Advisory Panel on the Spotted Owl

William R. Dawson,
*D. E. S. Brown Professor of Biological Sciences and Director of the
Museum of Zoology*
The University of Michigan (*Panel Chairman*)

J. David Ligon, *Professor of Biology*
University of New Mexico

Joseph R. Murphy, *Professor Emeritus of Zoology*
Brigham Young University

J. P. Myers, *Associate Curator of Ornithology*
Academy of Natural Sciences of Philadelphia

Daniel Simberloff, *Robert O. Lawton Distinguished Professor*
Florida State University

Jared Verner, *Research Ecologist*
Pacific Southwest Forest and Range Experiment Station, Forest Service,
U.S. Department of Agriculture

Submitted to the National Audubon Society on April 29, 1986

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I. Summary and Synopsis of Recommendation

The Audubon Advisory Panel on the Spotted Owl has developed a set of recommendations concerning the maintenance of the viability of this bird in an area that includes Oregon, Washington, northwest California, and the Sierra Nevada. Some of these deal with the number of birds required, their distribution, and area of their home ranges. The remainder concern implementation and monitoring of management plans, and research needed to increase the precision of the management effort. Our approach differs from that used by the agencies, notably the USDA Forest Service, for it emphasizes number of birds rather than number of habitat areas, and it deals with a natural segment of the Spotted Owl's distribution in the Pacific states rather than a single administrative jurisdiction of a particular agency. Our orientation has been prompted by two considerations: biological reality and the need to involve in the management effort the whole series of agencies administering land containing suitable habitat for these owls in the Pacific Northwest, northwest California, and the Sierra Nevada.

Our recommendations consist of the following:

(1) *The management program for Spotted Owls in Oregon, Washington, northwest California, and the Sierra Nevada should be directed to maintenance of a minimum total of 1500 pairs of these birds.*

(2) *Current geographic distribution of the Spotted Owls in Oregon, Washington, northwest California, and the Sierra Nevada should be maintained through a habitat network system like that under development by the Forest Service in cooperation with other agencies.*

(3) *The view that an effective breeding population of 500 always suffices to maintain sufficient genetic variability for subsequent evolution in a changing environment should be discarded from management formulations.*

(4) *Habitat areas that include 4500 acres (1823 ha) of old-growth forest should be retained for pairs of Spotted Owls in the Washington portion of the network. Habitat areas for accommodating pairs in Oregon and northwest California should provide 2500 acres (1013 ha) of old-growth. On the basis of preliminary information, we recommend that the figure for old-growth in the home ranges of pairs of Spotted Owls in the Sierra Nevada be 1400 acres (567 ha).*

(5) *Current procedures for guaranteeing accountability of agency personnel responsible for maintenance of viable populations of Spotted Owls should be improved.*

(6) *A well-designed monitoring system should be implemented on a sample basis.*

(7) *A well-designed program of intensive and extensive research should be undertaken as soon as possible.*

We believe these measures provide a reasonable chance of maintaining a viable population of Spotted Owls in Oregon, Washington, northwest California, and the Sierra Nevada over the near-term and of retaining options that may be needed as research provides a basis for a more precise standard of management. In the judgment of the Advisory Panel, the case of the Spotted Owl in northwest California and the Pacific Northwest involves more than the welfare of a single vertebrate species. The value of this bird as an indicator of the condition and extent of old-growth Douglas-fir forest may well facilitate protection of some basic functional relationships of this plant assemblage that are vital to the overall ecology of the Pacific Northwest.

STATEMENT FOR THE RECORD
OF
KENT S. ROBINSON

POLICY AND PROGRAMS ANALYST
NATIONAL FOREST PRODUCTS ASSOCIATION

I. Introduction

Good morning, my name is Kent Robinson. I am Policy and Programs Analyst with the National Forest Products Association here in Washington D.C. I would like to thank both Chairman Volkmer and Chairman Vento for allowing me to testify today.

National Forest Products Association (NFPA) represents over 750 forest products manufacturers, timberland owners, regional and local trade associations, and allied members. Our members range in size from large corporations to small family owned businesses. NFPA members are located throughout the United States and Canada.

As previously discussed by Mr. Stout in our opening panel, the surrogate issues of spotted owl management and old growth management merely cloud the basic issue of forestland allocations. Unfortunately our discussions today are framed on the issue of old growth management. Accordingly, my testimony will present NFPA's accounting of old growth acreages and definitions followed by a discussion of the difficulties of obtaining accurate old growth acreage estimates. I will then address the tie between old growth and spotted owl habitat.

II. The Old-Growth, and Spotted Owl Issues are Merely Surrogates for the Basic issue of Forestland Allocation.

Both the old growth and the spotted owl issues cloud the central issue of federal forestland allocation to multiple-use management including timber production opportunities. This on going debate began long before Rare II. The intermediate chapters of the 1984 Oregon and Washington Wilderness Bills provided little relief to the controversy. The National Forest and BLM forest planning processes are currently coping with these issues. Both the old growth and spotted owl management issues belong in the forest planning process. We question whether the preservationist community are sincerely attempting to attain their goals through this process.

III. Until the Results of the Ongoing Old Growth Surveys are Available, NFPA can Only Accept the Best Information Available --Forest Service and BLM Timber Inventories.

Based on public agency inventories, there are 7.5 million acres of old-growth in Oregon and Washington. Currently the national forests in these two states hold 6.2 million acres. BLM forests in western Oregon hold 406,000 acres. Finally, the National Parks in Oregon and Washington contain an additional 943,000 acres.

In the Pacific Northwest, 4.2 million acres of old-growth timber are currently protected in National Parks, wilderness areas, research natural areas and other administrative set-asides. The 1984 Oregon Wilderness Bill clearly recognized the need to protect low elevation old-growth by establishing the Middle Santiam and Menagerie Wilderness areas on the Willamette National Forest and the Salmon-Huckleberry and Bull of the Woods Wilderness Areas on the Mt. Hood National Forest. Similarly, the 1984 Washington Wilderness Bill provided protection for low elevation old growth in the Trapper Creek Wilderness on the Gifford Pinchot National Forest and in the Mt. Skokomish Wilderness on the Olympic National Forest.

The remaining old growth stands, covering 3.3 million acres, are available under Forest Service and BLM plans multiple-use management including timber harvest. At current harvesting rates, this inventory will last for at least 50 years.

The Pacific Northwest forests however are dynamic systems. Large wildfires devastated vast acreages of forestland on the Siuslaw and Willamette National Forests about a century ago. Today these once-burned acres support stands of young to mature aged timber. With careful management, these stands can add to our stocks of old-growth in future decades.

IV. Lack of a Concise Old Growth Definition Prevents Easy Categorization of Mature and Over Mature Timber Stands.

Old growth definitions vary according to the need of the issue. Varying old growth definitions translate into varying timber stand characteristics -- the diameter of standing trees, the amount of dead and down trees, the canopy structure, and the contiguous acreage of the stand. Taken to extremes, this game could identify all stands with 500 year old and greater trees. Preserving these few stands as old growth we could release all other stands to timber management.

Rather than ask each witness to provide a single definition for old growth, the Committee needs to ask a different question. What is the management goal which the agencies should apply to a particular piece of the federal forest landbase. Once the management goal is explicitly articulated, preferably through the NFMA forest planning process, the federal agencies can make the appropriate land allocations.

V. The Interim Independent Old Growth Inventories Conducted by Preservationist Groups Cannot be Relied Upon to Provide Unbiased, Accurate Old Growth Acreage Estimates.

Because of the variation in definitions, superficial surveys conducted by preservationists have resulted in biased estimates which provide inaccurate conclusions. In order to argue their

case, the Wilderness Society developed an old growth inventory which suited their political needs.

First, the Society selected a narrow definition of an old growth stand as a basis for a categorization. Through this categorization, 439,000 acres of timber were excluded from a "classic" old growth categorization because the stands were under 80 acres in size and within 400 feet of a managed stand or road.

The Society then based their inventory on existing Forest Service timber inventories. These inventories designed and executed in the early 1980's provided the basis for the current round of NFMA forest planning. The statistical design for these inventories sampled for the volume of different species and sizes of timber across a national forest rather than for ecologic characteristics. These inventories sampled for attributes different from those needed to determine the acreage of "classic" old growth on a forest wide basis.

The misapplication of the Forest Service inventory is akin to commissioning a political poll to gather information for an election campaign. Through a misunderstanding however, the pollster asks the public an unimportant or unwanted set of questions. Further, in selecting the survey sampling techniques, the pollster in striving to do a good job, focuses on learning the unwanted public opinions. The resulting poll results never

helps your campaign, and further can't easily be used to answer other questions. The Wilderness Society old growth inventory suffers from a similar deficiency. Accordingly, the Wilderness Society's old growth acreage estimates reflect results which are biased because the original inventory asked a different set of questions.

Finally, the Forest Service inventories measure timber resources only outside of designated wilderness areas. To remedy this short coming, the Wilderness Society, relied on aerial photo interpretation to obtain wilderness old growth acreage estimates. Without an extensive program of ground truthing, aerial photo stand typing cannot provide reliable estimates of stand condition. The Wilderness Society's photo interpretation failed to provide extensive ground truthing.

With these compounded shortcomings of singular, restrictive definitions, biased statistical techniques, and minimal ground truthing, we must view the Society's old growth acreage estimates with incredulity.

VI. Even the Congressional Appropriations Committees Recognize the Need for Refined Inventories to Obtain Comprehensive Data on Old Growth Acreages.

To obtain accurate timber stand data to resolve the old growth issue, the Congressional Appropriations Committees

appropriated funds for the design and execution of an old growth timber. This inventory will provide the data necessary to locate timber stands of varying old growth characteristics across the Pacific Northwest Forests. NFPA and its Pacific Northwest members eagerly await both the results of these inventories and a review of the methodology used to obtain the results. The Forest Service expects to provide complete inventory data by 1992.

VII. Preserving Old Growth does not Necessarily Equate to Maintenance of Spotted Owl Habitat.

While mature and over mature timber stands often provide acceptable habitat for the northern spotted owl, the owl can exist outside of these conditions. As some of the other panelists will discuss, the exact requirements for spotted owl habitat are not completely known. Undisturbed old growth forests however, are not a universal requirement for spotted owl habitat. For example, breeding pairs of spotted owls thrive in partially harvested timber stands on the Wenatchee National Forest.

Timber stands on the Siuslaw National Forest present an additional example. As noted earlier, many of the stands on this forest resulted from wildfires about a century ago. Surveys indicate that many but not all of the owls on the Siuslaw occur in relatively young timber stands. Spotted owl habitat does not

require "classic" old growth as perceived through the human senses. The owl requires acceptable habitat as perceived through its own senses.

Rather than address how spotted owl habitat and old growth forests are similar, this Committee should focus on spotted owls successfully living in habitats other than old growth. The timber stand characteristics in these unusual sites provide the keys to how spotted owl viability and timber management activities can complement and even enhance each other.

VIII. Summary

In summary, the old growth and spotted owl issues are surrogates for the land allocation issue currently under review in the ongoing forest planning process. As such these issues should be addressed in the planning process. Stop gap inventories such as those provided by the preservationist community fail to provide the comprehensive information necessary for making sound policy decisions.

The Forest Service and the BLM stand inventory process currently underway will provide accurate data in a timely manner. Policy decisions reached before this data is available will be premature and a waste of scarce financial resources. These Committees should insure, through the Appropriations process,

that the Forest Service and the BLM receive adequate funding to complete the inventories.

I appreciate the opportunity to testify today. I would be glad to respond to questions.

STATEMENT FOR THE RECORD
OF
JAMES M. ENGLISH
EXECUTIVE VICE PRESIDENT
IDAHO FOREST INDUSTRIES, INC.

I. Introduction

Mr. Chairman, I am James English, Executive Vice President for Idaho Forest Industries, Inc. Thank you for the opportunity to testify today. My company has sawmills in Coeur d'Alene and St. Anthony, Idaho and Medford, Oregon. Our mills are dependent upon federal lands for a large portion of our raw material supplies. Restrictions in timber supply due to arguments over land allocations have reached severe proportions in the Northern Rockies and the Pacific Northwest, threatening the future of our mills and many others. As I will describe, however, this issue is not confined to these regions.

Clearly, no consensus has yet been reached for a uniform definition of "old growth." In fact, old growth has been defined in different ways according to the objective at hand: it has been defined narrowly when the objective is to show how little old growth is left, and again -- sometimes by the same individuals -- more broadly in order to determine the largest boundaries possible to "protect" what old growth is remaining.

This confusion and manipulation of the definition clearly demonstrates the fact that old growth is being used by some as a surrogate in the broader land allocation debate. In fact, the claim that remaining tracts of old timber -- measured by the most convenient definition of the moment -- require protection has

surfaced repeatedly in numerous appeals of agency planning and policy decisions across the country.

II. Perhaps the Most Telling Evidence that the Old Growth Issue is a Surrogate in the Broader Land Allocation Debate is the Large Number and Variety of Contexts in Which It Has Arisen.

The alleged "need" to protect old growth has been argued repeatedly in forest planning debates, in proposals to harvest specific tracts of timber, in arguments over whether to build roads (whether for recreation, resource protection, wildlife habitat improvement, timber, or other management purposes), in the planning of salvage and land rehabilitation activities following severe wildfires, and in debates over the designation of lands for additions to the National Wilderness System or for new national parks.

The Forest Service estimates that the issue of old growth management has been raised in at least one appeal of every national forest plan in the country. In these appeals, the issue has often been stated in the more specific context of even-aged and uneven-aged timber management, selection of clearcutting as a management and harvest system, biologic diversity, and wildlife management issues such as the spotted owl or the timber wolf.

The issue has also arisen in appeals of local project decisions. In the Intermountain Region (including Nevada, Utah,

Wyoming and Southern Idaho), approximately 75% of the timber sale appeals filed last year dealt with the old-growth issue.

Virtually all of the plan and project appeals filed on the seven national forests in Idaho include old growth as an issue.

In Region 5 (California), at least 20 appeals of project decisions have addressed the issue of old growth. These have included appeals of fire salvage sales, where salvage and reforestation efforts are needed to rehabilitate the burned land. Yet the Forest Service's decision to salvage has been challenged in an effort to leave the dead old growth timber on vast acreages of land.

In the Pacific Northwest Region (Oregon and Washington), of the 48 timber resource appeals currently pending at the regional office, fully 88 percent address the old-growth and spotted owl habitat issues.

Finally, in Forest Service Region 9 (the Lake States and the Northeast) where over 110 national forest plan appeals have been filed, appellants have raised the old growth as an issue in at least 40% of the appeals received by the Forest Service. In many cases old growth has been raised indirectly in both plan and project appeals in the context of protecting specific types of wildlife habitat or maintaining biotic diversity. However, in Region 9 the average age of the forests under attack is only 70

years. These national forests were acquired by the federal government in the 1930's under the Weeks Act. They were heavily cut-over lands. This can hardly be termed an "ancient forest," of primeval uncut forests. The issue is rather clearly framed to "protect" the older stands of trees, whatever their age.

II. There is a great deal of confusion over the definition of old growth.

A previous witness noted that there is confusion over the definition of old growth. I must agree that, although there has been a great deal of recent public attention focused on what old growth is, there has been little resolution to the debate. In fact, "old growth," like "biological diversity," is a term which defies specific, scientific definition.

Many forests -- or stands of trees within a forest -- may exhibit old growth characteristics. But in trying to reach a specific definition, how large must the stand be? How old are the trees? How much of the forest should be living, and how much dead and decaying? Is it best defined by a minimum number of trees over a certain size, or a certain size and number of snags and rotting logs on every acre? All of these characteristics are quite variable, depending on the species of trees, the richness of the soil, and even the perception of the visitor.

Most people would consider a very old stand of Giant Sequoias -- thousands of years old -- in Yosemite National Park to be "old growth." But it is not by the Wilderness Society's definition, which does not allow old growth forests to be adjacent to a road. By contrast, some say that old growth forests must be over 200 years old, yet the lodgepole pine of Yellowstone was old and dying at the ripe age of 120 years.

III. The Inherent Difficulty in Reaching a Specific Definition for Old Growth Has Made the Issue a Convenient and Fashionable One with Which to Rally Public Support for Attacks on Forest Service Management.

A. The Old Lodgepole Stands of the Rocky Mountains Cannot be Preserved Forever.

The call to protect old growth timber has become part of the rallying cry to protect large portions of the timber stands in the Rocky Mountain Region. The lodgepole forests of the Rocky Mountains are generally old. Preservationists have called for public support to "save" these forests by setting aside large areas of the national forests as wilderness or other special designations which do not allow active forest management. They argue that Forest Service management of these stands will result in the loss of many acres of timber if not otherwise "protected."

However, we cannot simply preserve blocks of old lodgepole pine forest, as we witnessed last summer, when the forests of

Yellowstone National Park unfortunately served as an excellent example of the result of such preservation efforts. The natural aging processes of the forest had already taken effect -- in their old age the trees were susceptible to insects and disease, and many trees had already begun to die. Ironically, these "protected" forests became extremely susceptible to fire. This story is by now well known, as over a million acres of old growth forests burned in and around the Park in a single season.

Far fewer acres burned on the National Forest land surrounding Yellowstone. On those lands managed for multiple use, the Forest Service had a much greater ability to successfully fight fires than existed on wilderness and adjacent National Park lands. Outside the designated wilderness, roads were in place and could be used; wildfire fuel levels had been reduced; and, where the Forest Service had already salvaged the dead and dying timber, the forests were healthier and more resistant to fire.

B. The Old Growth Issue Has Been Used as the Justification for Protecting Second Growth Hardwood Stands in the Lake States and Appalachian Forests.

The old growth argument has also been used in an effort to allocate preserves of second growth stands of hardwoods in the Lake States and the Appalachian National Forests. In the February, 1989 report by The Wilderness Society, "Mountain

Treasures at Risk," the Wilderness Society argues that old growth hardwood stands of the Southern Appalachian region must be protected. Yet these forests are barely 80 years old.

In Wisconsin, appellants of the national forest plans have argued to be set aside areas from other uses for the protection of biological diversity. The appellants want allocations for large areas of "contiguous mature forests," although the forests of the Lake States generally average only 70 years of age, and many of the stands under debate are stands of aspen trees only 40 years old.

On the Chequamegon National Forest, for example, much of the area was cutover, burned, and, in some cases, even heavily farmed prior to 1933. In that year the National Forest was established, and the Forest Service directed its attention to reforestation and protecting the young forest from fires. Over the next decades, the Forest once again became important as a source for timber products, as it continues to be today.

Although the young forests of the Lake States hardly considered "old," opponents of multiple use management challenge timber management practices designed to further improve the health and productivity of the forest, claiming that the Forest Service has not set aside enough of the "old growth." This is

notwithstanding the historical fact that there was no "old growth" before the Forest Service assumed management of the land. In fact, with the current pressure to preserve the formerly cutover and farmed lands, the only areas truly safe from attack may be the former strip mines that the Agency inherited when these lands were acquired.

- C. The "Old Growth" Issue Is being Raised in Appeals Throughout the Country in Forests that Have Been Harvested at Least Once, Carrying the Simple Message, "Don't Cut Trees."

Clearly, the very argument that old growth timber must be protected has been used in many contexts, and to describe forests of such varying ages, that even the proponents of this issue cannot agree on a definition. The old growth issue has been expanded to address the more basic issue of land allocation -- and it is used simply to rally support for broader efforts to stop the harvesting of timber on large portions of our national forests.

Large tracts of federal lands -- over 131 million acres -- have already been preserved in National Parks, Congressionally designated wilderness, and other administrative set asides in all regions of the country. Therefore, it appears to me that the real question is not how we should define "old growth," but how much land should be set aside from multiple use management.

Thank you for the opportunity to testify today. I would be happy to answer any questions you may have.



THE WILDERNESS SOCIETY

TESTIMONY OF JEFFREY T. OLSON, FOREST ECONOMIST FOR THE WILDERNESS SOCIETY, BEFORE A JOINT HEARING OF THE U. S. HOUSE OF REPRESENTATIVES, INTERIOR SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS AND THE AGRICULTURE SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY, ON OLD-GROWTH FORESTS IN THE PACIFIC NORTHWEST, JUNE 20, 1989.

I am Jeff Olson, forest resource economist with The Wilderness Society, a 55-year old conservation organization whose membership now exceeds 300,000 people nationwide. The Society is dedicated to the sound management of the nation's public lands, a system of publicly owned land that is unique in the world.

I am pleased to have this opportunity to testify regarding the management of old-growth forest resources in the Pacific Northwest. The controversy now surrounding these lands is of great importance to all Americans, as well as to residents of Washington, Oregon, and California. Unfortunately, ancient forests, part of our rich natural heritage, are badly fragmented and at risk. To lose what little remains of the ecologically viable old growth would make us all the poorer.

But The Wilderness Society is also concerned about the future of the magnificent forests of the Northwest in relation to the region's economy. We believe that the achievement of our environmental goals, the health of the forest environment, as well as the region's quality of life, and a prosperous economy are intertwined. To that end, we have conducted detailed studies of the Forest Service's proposed forest management plans, how much ancient forest remains, and the transition that is occurring in the region's timber economy.

It is clear that the timber economy is undergoing a fundamental transition in its role in the region. It is shifting from exploitation of the region's original endowment of mature, natural forests, to managed stands of younger, second-growth timber. That transition is essentially complete on state and private forestlands. Today, most--if not all-- of the remaining old-growth forests are on the national forests and Bureau of Land Management lands in Oregon and Washington. The publicly owned forests are supporting an ever-increasing share of the total timber cut in the region, rising from just over 30 percent in the 1950s, to 40 percent in the 1960s, 1970s, and to nearly 48 percent in the 1980s.

Today, the real issue for the future of the Northwest's economy is not just timber, but it is the future of the region's magnificent forests. The transition to a second-growth timber economy is undeniably altering the character and diversity of the overall forest landscape. The Wilderness Society believes that it is necessary to understand this transition in order to understand the growing controversy surrounding the old-growth issue.

Background

The timber industry in the Pacific Northwest has become the high-cost producer of lumber and other wood products, including plywood, relative to its competitors in the southern states. According to Forest Service data, the solid wood products industry in states such as Alabama, Mississippi, and North and South Carolina enjoy a cost advantage of more than \$100 per thousand board feet in comparison to the Pacific Northwest. Virtually all of that cost advantage is due to the substantially lower costs of logging in the South where flat terrain and good access make highly mechanized logging feasible.

The cost disadvantage first became apparent in the mid-1960s, and has been growing steadily ever since. Consequently, new plant and capacity expansion began migrating to the South. The exodus of new plant capacity from Washington and Oregon has seen the southern states increase their share of solid wood products plant capacity from 23 percent in 1964 to 39 percent in 1985. At the same time, the Pacific Northwest's share of total plant capacity fell from a peak of 36 percent in 1964 to 30 percent by 1985.

As a contributor to the region's economic base, timber has played an important, but declining, role in the Northwest. Gross product, the value of all final goods and services produced, provides an indicator of the relative importance of an industry to the region's economic base. In Washington and Oregon, the share of gross product contributed by the timber industry has been falling steadily since 1978. Today, logging and the solid wood products industry contribute just 3.5 percent to the total regional product. Twelve years ago, in 1978, the industry was responsible for more than 7 percent.

Employment trends follow a similar pattern, except the decline has been steady since 1969 when the logging and wood products industry provided more than 6 percent of all jobs in Washington and Oregon. By 1987, the timber industry accounted for just under 3 percent of the region's total workforce.

Yet, even though the logging and solid wood products industry of Washington and Oregon slipped in importance as a factor in the region's economy, economic growth in those states continued through diversification. Today, the two states are enjoying economic

growth at rates that exceed the national average while the timber industry's contribution to employment and gross product is declining. Washington and Oregon are now less sensitive to the boom and bust cycles that characterize the timber industry.

The future for the timber industry is likely to include continuation of these trends in employment. The fundamental forces that caused the timber industry to slip in the 1960s and the 1970s are still at work as we approach the 1990s. The most important factors seem to be high manufacturing costs, excess production capacity nationally, and tightening timber supplies--particularly on the private lands.

Currently, the industry's capacity to produce lumber and plywood nationally exceeds demand. This has resulted in lower inflation adjusted prices for finished products, despite record demand experienced through 1987. For example, Douglas-fir standard and better two-by-four lumber brought \$260 per thousand board feet in 1979 but just \$240 in 1989, even without downward adjusting for inflation. Softwood plywood prices have shown similarly disappointing price performance. At the same time, lumber and plywood production reached new highs in 1988.

This story echoes throughout the country. Manufacturing capacity increased at a faster rate than demand, and prices fell in both real and nominal terms. Moderate growth in demand and increased capacity have combined to make the wood products business extremely competitive. These factors are liable to characterize the timber industry for the next several years.

Export-grade logs are the only product that has enjoyed growth in both demand and price. In just the one year from 1987 to 1988, the quantity of logs exported from Oregon and Washington ports soared to more than 4 billion board feet, an increase of over 1 billion board feet. Log exports also reached a new record in 1988, more than 20 percent higher than the last previous peak of 3.2 billion board feet set in 1979.

As production of finished products and log exports reached record levels during the last two years, the overall timber supply remained remarkably constant. Timber sold from state and federal lands in Oregon and Washington has averaged 7.4 billion board feet since 1978. Last year, state and federal timber sold in the two states totalled 7.1 billion board feet, 95 percent of the average and within the normal range of variation observed from year to year.

The amount of timber cut, which historically has been more volatile than the volume of timber sold, averaged 6.7 billion board feet from federal and state lands during the last 11 years. More recently, however, the cut on public lands has substantially exceeded the volume sold, reaching a peak of 8.3 billion board feet

in 1987. The cut in 1988 was approximately 8 billion board feet. At the same time, timber harvested on private lands shows some signs of declining after averaging 7.1 billion board feet over the last several years.

Contrary to assertions by the timber industry, the volume of timber sold by state and federal agencies did not change significantly until this year. Growth in demand from both the domestic market and in log exports has clearly pushed demand for timber in the region beyond sustainable levels. Industrial forestland owners have been unable to increase the timber cut on their lands, and the publicly owned forests are already selling timber at, or higher than their sustainable annual sales levels. This has forced timber prices higher than they have been since 1979. The result has been a cost-price squeeze for domestic producers who have enjoyed no real price increase in their finished products.

Over the longer term, timber supplies throughout the Pacific Northwest are expected to fall. This decline is projected to total about 16 percent compared to historic cut levels over the next 30 to 40 years and comes as no surprise. Oregon State University first reported the likelihood of such a shortfall in 1975, and considerable attention has been devoted to this eventuality. Virtually all of the decline in timber supplies will occur on private lands. The impact will be to reduce the volume of lumber and wood products manufactured in Oregon.

Timber, then, is destined to play an increasingly smaller role in the Pacific Northwest economy. Modernization will replace workers as the industry seeks to remain competitive. The Oregon Economic Development Department estimates, and our own research confirms, that several thousand timber jobs will be lost to modernization. Job losses due to declining timber supplies will also occur, but to a lesser extent.

Policy Options

Earlier I stated that the real issue for the Northwest is not the timber-based economy but the future of the total forest resource. While timber's share of the state's economic base will continue to decline in importance, the non-timber elements of the economy are increasing in importance. The reality is that forests --particularly the national forests and BLM lands--are under great pressure to produce not only more timber but also more recreation opportunities for residents and visitors, more clean water for Oregon cities, more wildlife habitat, more fish--in short, more of everything for both commercial and non-commercial purposes.

Forest Service data reveals that demand for recreation and other uses of public forests is rising faster than these lands can keep up with at the same time that demand for timber is rising and

private supplies are limited. The public lands are at a disadvantage to the private sector when it comes to growing wood fiber, but they have a competitive advantage in providing for other forest uses that are not always traded in the marketplace. In short, public lands should be dedicated to providing non-timber values that the private lands cannot.

To maintain both employment in timber and the variety of important characteristics common to natural forests, we must take advantage of our competitive strengths. The Society's recommendations follow:

- o Keep jobs in the Pacific Northwest rather than exporting them to the Pacific Rim along with logs. The increase in log exports last year exceeded the timber volume currently under injunction on Forest Service lands. Exports take logs away from the region's mills, drive up stumpage prices, and cost timber jobs. Instead of increased log exports, policies are needed to encourage investment in products that can be marketed to Pacific Rim countries. Reduced log exports will increase supply to all manufacturers and help increase employment.

- o Concentrate timber production on the most productive lands. These are mainly private lands, held by the forest products industry and by non-industrial private owners. Farm and non-farm private forests in Oregon and Washington are highly productive but underutilized. According to Forest Service data, the non-industrial forestland owners in the Northwest harvest just 36 percent of the timber grown on their lands. These individuals hold some 18 percent of the timberland in the region and yet provide less than 5 percent of the timber cut. In contrast, non-industrial forestland owners in the South provide 65 percent of the total cut in that region. Policies to encourage greater utilization of these lands could significantly increase timber supplies.

- o Increase raw material utilization efficiency by reducing mill waste. The potential exists today to increase effective timber supplies. Mill operators should be encouraged to adopt the technologies to accomplish it.

- o Encourage economic diversification in part through developing the nontimber resources on public forests where such use will not impair the natural and scientific values of the land. Fisheries and recreation are examples of industries dependent on the forests of the Northwest and key parts of the region's continuing economic diversification.

The focus must shift to maximizing the role of forests in the region's future economy. The Wilderness Society emphasizes that timber is one part of that future, but only one part.

TESTIMONY

Committee on National Parks and Public Lands
and Subcommittee on Forests, Family Farms and Energy
United States Congress, Washington, DC
June 20, 1989

Good afternoon. I'm Jerry Rust, Lane County Commissioner of Eugene, Oregon, currently serving my fourth four-year term. Lane County is the home of the Willamette National Forest, which produces ten percent of the revenue for the National Forest Service system. As an elected official from the county that receives the greatest number of receipts from forests in United States, as someone who has worked in many facets of the forest products industry, as a small woodlot owner and manager, I am speaking to you today.

First, I want to tell you that I welcome the listing of the spotted owl as an endangered specie, not only because all credible scientific information points to the need to list the owl to prevent its extinction, but also because we have been liquidating at a rapid rate the greatest temperate zone rain forest on earth, and the owl is an indicator of the health of this forest. I believe that we can live with the listing. In fact, I believe that the wood products industry in Oregon can continue to thrive with the owl listed. Withdrawing the owl habitat permanently from the harvest base is not a disaster. In fact, it will protect the deepest, darkest part of our remaining ancient forest. It will protect our water quality, fisheries and the growing tourist and recreation industry in our state. I do recognize that between 4,000 and 7,000 jobs will be impacted.

Some of us in Oregon have been calling for a transition plan for more than a year. It is my opinion that if we implement a transition plan that deals realistically with the effects of protecting the owl's habitat we can mitigate most, if not all of the long-term effects that will come through the listing of the owl.

I primarily want to talk to you today about jobs in the second growth forest. It is a myth that environmentalists like myself are not sensitive to jobs in the forest. One of the greatest kept secrets in Oregon is the fact that we have already cut-over nearly 20 million acres of forest land, much of which has grown back to harvest age or could use intensive management. We need to make a dramatic shift away from cutting down the remaining owl habitat and towards intensive forest management on the second growth timber lands.

Jobs in second growth often are not capital intensive but labor intensive. They require upfront investment and often profits must be deferred. In areas such as thinning, precommercial thinning, salvage logging, on-site small scale milling, hardwood management and pruning, to name a just a few, I am convinced that the State of Oregon could obtain several thousand new jobs. This would partially mitigate the loss of 4,000-7,000 jobs that are predicted from the withdrawal of the owl habitat from timber harvest and also produce ongoing jobs and revenue. It is also obvious to me that we cannot prevent all of the negative employment problems. There will be mill closures and there will be impact on human lives.

Lane County and other counties in Oregon have well-developed private industry councils. In Lane County we have already begun a serious planning strategy and are ready to implement, with the help of the state and federal government, a wide array of employment services and retraining programs that will assist workers in finding family wage jobs as quickly as possible. Some of the services include: life skills training; job transition counseling; job search workshops; and retraining, often in cooperation with a community college. The State of Oregon has applied for \$1.9 million of Discretionary Dislocated Workers' Funds in order to serve an additional 900 dislocated workers.

As a Commissioner in Lane County, which derives a great deal of revenue from the national forest and is blessed with a historic partnership between county and federal government, I would like to mention that the impact on county governments' revenues to date has been negligible. In the BLM administered lands the average bid price in 1988 was \$157.26 per thousand board feet. In the first four months of 1989 prices have risen to \$246.75. At the same time the spotted owl injunctions have reduced the volume available for harvest on Oregon BLM lands from about 1.2 billion board feet to 700 million; about 65 percent of the volume. However, because bid prices have risen, the amount of revenue to federal and County treasuries will be roughly the same. No one can predict the future, but should the bid prices continue at the same level one can make a case that the federal and county governments will not lose substantial revenues, even with the spotted owl injunctions implemented.

During the course of setting aside the owl habitat I can tell you that, while mill owners are scrambling for logs, small woodlot owners are benefiting from the higher log prices. It is my opinion that the federal government's policy of flooding the market with cheap old growth timber, a practice of the past, was unwise, and artificially lowered the price of timber. The current prices more correctly reflect the true value of our commercial timber from federal and private lands. At higher prices small woodlot owners can afford to intensively manage their lands for future productivity. This will contribute to the long term timber supply.

As I said, we cannot prevent all of the negative impacts that will follow the owl listing, but we can take steps to mitigate most of them. I want to conclude by saying that the global issue of the liquidation of rain forests has a connection to Oregon. Since the federal government is the custodian of this great rain forest, I urge that the national interests be implemented. We have pressured Brazil to end its devastation of the tropical rain forest. I cannot conceive of that policy unless we do the same in the northwest. Any moral high ground that we have in this matter would be preserved only if we act accordingly.

STATEMENT FOR THE RECORD
OF
SUE KUPILLAS

COUNTY COMMISSIONER
JACKSON COUNTY, OREGON

I. Introduction

Hello, my name is Sue Kupillas. I live near Eagle point in Southern Oregon. I have served on my local school board for 8 years, on the State Board of Directors for six, and was elected in November of 1988 to the Jackson County Board of Commissioners.

What brings me before you today are the current abrupt changes in forest management policy which cause me to have a deep concern for the future of our local communities so dependent on the timber resource.

Jackson County relies heavily on O & C funds for general fund operations (which include law enforcement, community health care, land surveying, and elections among others.) Burke Raymond, County Administrator, in his 1988 Budget Message stated, "As I pointed out last year, the county continues it's heavy dependence on timber cut to support the myriad of activities in which we are involved. Since we are so dependent on the level and the price of timber cut, it still remains true that our destiny is determined by forces beyond our control..." Ironically, this year, O & C receipts came at a record high in the county. We are budgeting for a severe drop over the next two years.

In basic Employment outside county services, 5 Oregon counties are more than 70% dependent on the wood products industry. Jackson County, along with 10 others are from 50-70% dependent on the lumber and wood products manufacturing for basic employment. (Oregon Forests 1989-90 by SOTIA)

Schools also have a direct dependence on federal forest lands. Last year 1988-89 -- \$1,386,000 was distributed to schools through the federal forest fee allocation. The District 9 allocation (where I am a member) was around \$200,000. This may not sound significant but, our district had to borrow \$ 1 million this year to fix 15 year-old roofs, replace 25 year-old busses, build a few more classrooms and complete our (federally mandated) asbestos abatement (\$250,000) The \$200,000 helps make the payment on our loan. As a district, we will have severe difficulty operating if we don't complete each one of these projects. District 9 serves 3,200 Oregon children who live in the timber and agriculture dependent communities of Eagle Point, White City, and Shady Cove.

It is not just the federal forest fee allocation that is important, but the family wage jobs within the community that make people want to stay and invest in our communities.

In a resource dependent area, both the receipts from federal forests to help provide services and the family wage jobs from the manufacturing of wood products are needed to provide a balance of services. The reason is that in counties like Jackson county, over 50% of the land is publicly owned, mostly by the federal government. Because we rely on property tax for service and we have a greatly reduced landbase to provide that, property taxes are high and they are primarily to support schools and city services. The idea of an increased property tax to support county services has not gained popularity since 1985 when it was soundly defeated. O & C funds currently seem to be the only support available for county services, however, we will be revisiting the issue of county finance again in 1989.

The Jackson County Board of Commissioners has approved a resolution that urges the Congress of the United States to: (1) enact emergency legislation to require more information on the needs of the Northern Spotted Owl, and to delay the immediate effects of that listing; (2) instruct the U.S. Forest Service and Bureau of Land Management to expedite timber sales outside enjoined areas, and to support that directive with supplementary budget appropriations including appropriating \$6 million to expedite commercial thinning sales; (3) Reach a compromise in the pending summit meeting that yields a continuous, predictable, stable timber supply while the Spotted Owl issues are being

resolved; (4) Clarify the standards in land management statutes and regulations so that disputes over timber supply can be resolved in a more timely, reliable and conclusive manner that is currently the case, finding a proper balance between the predictable and workable system and the democratic right of citizens to be meaningfully heard; (5) Restore the forest planning process of U.S. Forest Service and BLM lands; and (6) take measures to ensure that all involved federal agencies comply rigorously with existing law so as to reduce the possibility of judicial reversals that extend litigation and delay resolution of critical disputes.

Over 2,000 local residents attended a hearing where we took testimony regarding this resolution (and two other resolutions, re: job retraining and log exports). This large attendance and the numbers of letters and phone calls have given me a clear indication that timber supply is a critical concern to the residents in Jackson County. We are counting on you to find solutions to the timber supply issues.

Thank you for giving me the opportunity to testify today. I will be happy to respond to any questions.

STATEMENT FOR THE RECORD
OF

ALBERTO GOETZL

FOREST ECONOMIST
NATIONAL FOREST PRODUCTS ASSOCIATION

I. Introduction

Good Morning, My name is Alberto Goetzl. I am the chief economist for the National Forest Products Association in Washington D.C. NFPA is a national trade association representing wood products manufacturers and owners and managers of forest land. Many of NFPA's members are wholly or partially dependent on the national forests, including the national forests of the Pacific Northwest, for their raw material supply.

My purpose on this panel is threefold: (1) to describe the current market for wood products; (2) to note the contribution of the timber sales program to the regional and national economies; and (3) to emphasize its importance to local communities. My part of the message is straightforward: We are currently in a strong wood products market and the loss of productive Forest Service timber base threatens to dramatically disrupt the economy in the Pacific Northwest.

II. The Performance of the U.S. Economy During the Current Expansion Has Defied Almost All expectation.

Despite occasional periods of foreboding signs, the economy continues to grow in real terms. Most economists have given up forecasting the timing of the next recession -- always pushing it



into the future. While mounting U.S. debt is a major problem, it is entirely unclear in what form or when its ramifications will be felt.

It now appears that the economy will hum along at 2 to 3 percent growth as long as there are no major surprises in the United States or abroad. Significantly, the prospects of a major downturn for wood products is lessened because of strong fundamentals supporting continued high demand (Chart 1).

A. Wood Demand Continues to be Strong Despite the Downturn in New Housing Starts.

Housing starts numbered just over 1.5 million units in 1988, and will likely finish 1989 at 1.4 million units. The decline in recent years has been principally in multi-family units; single-family starts have been exceeding 1 million units per year since 1983. These new homes are using more wood because they are larger, on average, and contain more wooden amenities and materials. Wood is the preferred building material for housing in the United States.

Repair and remodeling now accounts for nearly a third of all softwood lumber demand. This compares with less than 20 percent a decade ago. Last year, homeowners spent over \$100 billion on improvements and upkeep. Of this amount, \$43 billion was spent

on renovations and additions to existing structures. This market for wood products has been growing at well over 10 percent per year in constant (inflation-adjusted) dollars. It is not likely to let up given America's aging housing stock and maturing population. Seventy-four percent of the housing inventory was built over 20 years ago. The combination of a steady housing market and rising expenditures on repair and remodeling should keep wood demand elevated into the 1990's (Chart 2).

The increase in U.S. manufacturing output since 1985, spurred by expanding exports, has increased industrial demand for wood products. Furniture and other wood-using manufacturing industries have been operating at or near capacity. And overseas exports of wood products have been growing at an unprecedented rate (Chart 3).

B. Exports of Wood Products Are Setting New Records Every Year.

Last year, the value of U.S. exports of solid wood products reached a new export record for the industry, with exports valued at \$5.3 billion. The volume of softwood lumber exports alone during 1988 increased better than 36 percent, to over 3 billion board feet. Similar gains were experienced in all wood product categories.

Factors driving U.S. exports include: (1) a favorable exchange rate for the dollar; (2) high productivity and efficiency resulting in competitive U.S. prices; (3) constraints on timber supply from tropical countries, increasing the demand for temperate zone species; (4) aggressive industry market development; and (5) growing overseas economies generating construction and industrial demand.

U.S. exports of solid wood products should continue to grow. This year we expect exports to increase another 10-12%, and current projections are for exports to increase an average of 10 to 15 percent annually through 1994. That would place U.S. exports at \$10 billion by the end of the period. Importantly, greater volumes of lumber and value-added wood products will be exported. The expanding export trade, coupled with stable or declining imports, can make the U.S. a net exporter of wood products throughout the 1990's.

A number of assumptions support this scenario. The value of the dollar should remain at current levels vis a vis the currencies of major trading partners. Timber from the tropical countries becomes increasingly constrained because of environmental pressure or simply, inventory shortfalls. Thus, the U.S. supplies an increasing share of the world market. The U.S. industry continues to aggressively market its products overseas and successfully seeks reductions in trade barriers

which discriminate against U.S. species. (Significantly, wood products were singled out for special consideration in the Commerce Department's Super 301 trade action against Japan). The economies in the Pacific Rim and in Europe continue to grow, spurring the demand for construction and other wood-related uses. And, most importantly, the U.S. can position itself as the world's low cost producer of finished wood products.

A rational, sufficient, timber supply program for the national forests is the linchpin for this entire scenario. Of particular importance to this Subcommittee is the fact the Pacific Rim holds the most significant overseas markets for U.S. products. In fact, well over 70 percent of all U.S. softwood lumber exports originate in the Pacific Northwest (Chart 4). Frankly, the raw material supply factor is what worries us the most at the present time.

C. Imports of Softwood Lumber Have Declined from Their Peak in 1985.

Imports of softwood lumber accounted for an estimated 29 percent of U.S. demand last year. That is down from the peak of 33 percent in 1985. But imports are still higher than they should be. The U.S. industry has the physical capacity to meet a larger share of its own domestic market, while also expanding its exports.

All things being equal, Canadian imports should continue to erode given the strengthening Canadian dollar, the robust off-shore demand for Canadian (as well as American) products, and the continuation of the softwood lumber agreement between the two countries. During 1988, only 54 percent of Canadian production was shipped to the United States. That contrasts with the high of 61 percent in 1986.

These trends are favorable, but could be quickly reversed if U.S. raw material prices begin to rise as a result of the lack of available timber.

III. Multiple-Use Management of the Pacific Northwest's Forest Resources is Essential to the Economy of the Region.

The timber-dependent industries employ some 131,000 workers in the Pacific Northwest. This represents 20 percent of the manufacturing jobs in the region, and 5.1 percent of all wage and salary workers.

In addition to direct jobs, there is a multiplier effect on indirect jobs which support or supply the timber-based industry. For every direct job in the timber industry, an additional job is supported elsewhere in the economy. As many as 250,000 jobs are impacted by the timber-based economy.

The critical importance of the timber-based industry in the region is brought home by the fact that it contributes about 44 percent to the economy of Oregon, and 28 percent to the economy of Washington. Needless to say, in numerous small, rural communities which dot the landscape throughout the region, the forest industry, and the service supported by it, provide virtually the only economic opportunities. In fact, a recent Oregon Department of Economic Development survey identified 80 communities in which the only source of economic activity is a wood products facility.

The federally owned and managed public lands provide -- that is, provided prior to this recent spate of appeals and litigation -- about 6 billion board feet of timber to the region. This represents about 40 percent of the total annual harvest. Much, if not most, of this harvest is from old-growth stands. A reduction in the availability of this timber would, by implication, have devastating effects on the regional economy.

IV. The Impacts on Local Communities Go Beyond Immediate Employment Effects to Reach Government Revenues Supporting Schools and Road Systems.

Each county in the nation containing U.S. Forest Service land receives a portion of the money that comes from the sale of timber, grazing permits, and mining leases on those lands.

Counties receive 25 percent of the gross revenues from the sale of timber.

The money that each county receives from the Forest Service must be spent on public works and schools. By agreement, seventy-five percent of the money received by Oregon counties must be spent in public works for roads, the other 25 percent must be spent for schools. In Washington, the funds received by counties is divided into public works and schools on a fifty-fifty basis. Over \$144 million was distributed by the Forest Service to local governments in the Pacific Northwest in 1988.

The Oregon and California Railroad (O&C) lands, managed by the Bureau of Land Management, operate under similar authorities for returning revenues from timber sales to local governments. The O&C counties receive 50 percent of gross timber sales. Unlike the USFS distribution, these monies can be used for any purpose chosen by the local jurisdiction. In 1988, the BLM returned \$69 million to the local counties.

Timber receipts shared by local governments are absolutely vital to many local government functions. Without this source of funds, numerous school, public works, and other services would have to be scaled back or eliminated entirely, or other sources of funds would have to be found. This would be the case if the timber sale program is reduced as being proposed by some groups.

Higher local taxes would only add further insult to the injury caused by loss of jobs following that development.

- V. The Constraints on Timber Supply Affect Not Only the Solid Wood Segment of the Industry, but also the Pulp and Paper Sector, its Businesses and Employees.

In the Pacific Northwest, unlike the South and Lake States, the pulp and paper industry depends on sawmill residues for the bulk of its furnish. A decline in lumber and plywood production poses serious problems for pulp and paper producers as well. The relevance of this fact to timber production on public lands is brought home when one considers that half of the chip supply in the region can be traced to federal lands.

Obviously, the constraints on timber supply cause chip prices in the region to rise. Perhaps more significant, however, are the implications for future investment in pulp and paper capacity. The uncertainty of chip supply in the region is bound to reduce or eliminate any new investments in pulp and paper manufacturing in the region. In fact, shortages of chips could result in curtailments and closures as they will for lumber and plywood mills.

- VI. The Importance of the Old-Growth Issue Extends Beyond the Region to the National Economy.

The federal lands in Oregon and Washington include some of the most productive timber growing sites in the world, let alone in the United States. Moreover, these lands contain the largest inventories of softwood sawtimber of any ownership anywhere in the world, either in the aggregate, or on a per acre basis. The public lands in Oregon alone contain 20 percent of the total United States softwood sawtimber inventory.

The six billion board feet harvested from public lands in the Pacific Northwest represent an estimated 10 percent of the total national sawtimber harvest, or about 15 percent of U.S. softwood lumber and plywood production. Constraints on timber supply portend a reduction in lumber and plywood production capacity. This, in turn, can only cause serious distortions in lumber markets. A reduction in capacity of this magnitude will surely manifest itself in the marketplace as higher consumer prices and a higher U.S. dependency on imports.

It will also significantly reduce exports of processed products from this region which currently account for 70 percent of the United States total. The United States wood industry has made great strides in reducing its dependency on imports, and, in fact, is increasing exports. The more constraints that are placed on timber supply in the Pacific Northwest, the less competitive becomes the processing industry in supplying world markets. The key to increasing U.S. competitiveness of processed

wood products is not to impose more constraints and regulation, but instead, to provide a greater, more secure and stable supply of raw material to the industry. The public lands play a key role in making the U.S. competitive in world markets.

VII. Timber harvesting is Already Prohibited on the Majority of Old-Growth Forests.

Presently, there are over 7.5 million acres of old-growth forest lands in Washington and Oregon. In excess of 4.2 million acres is preserved as Wilderness, National Parks or other set asides where timber harvesting is prohibited. This means that less than half -- 44 percent -- of the existing old-growth forest land in the region is under multiple-use management thereby allowing timber production.

Moreover, not all of the land managed under multiple-use is slated, or is as a matter of practice available, for timber harvest. A variety of environmental regulations reduce the land area on which timber is, or can be, harvested. These include such things as: requirements for dispersion of harvest activities, protection of visual and cultural resources, protection of wildlife and minimization of cumulative effects on soil and water resources.

The harvest level of old-growth, and acres affected, is

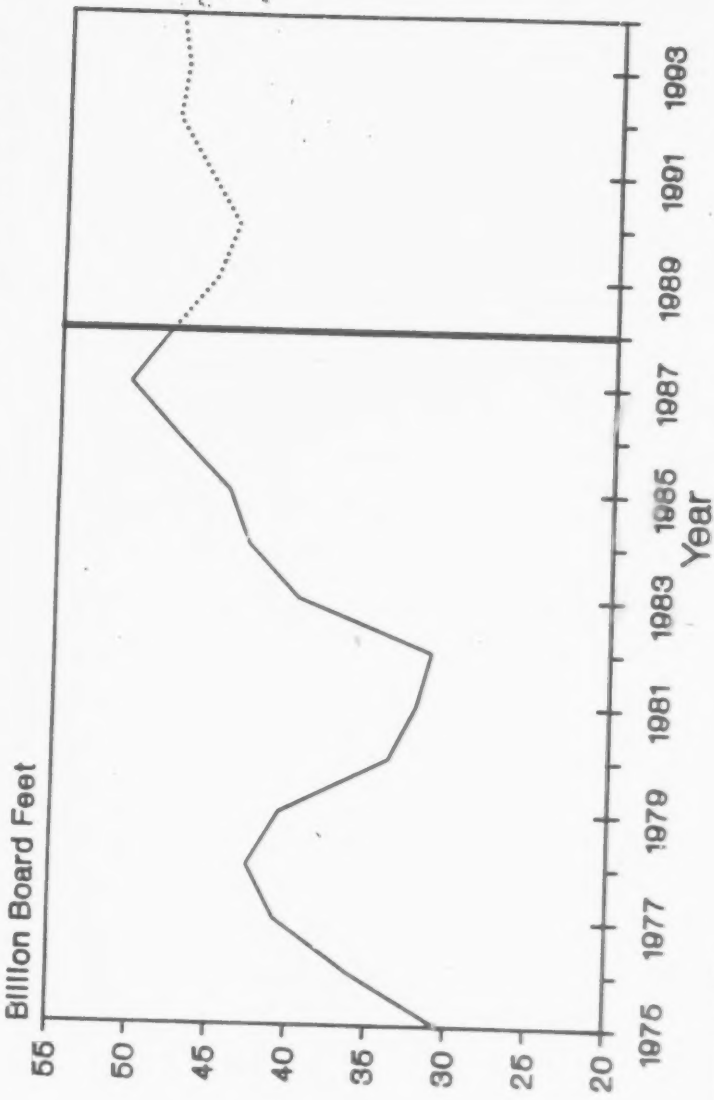
determined through the land management planning process which sets allowable sale quantities. These prescribed harvest levels assure a sustainable supply of timber in perpetuity. At the levels currently contained in management plans, harvesting of currently existing old-growth can continue at current levels for at least fifty years.

As hard as old-growth might be to define, it is not a static phenomenon. As some old-growth is harvested, other stands develop similar characteristics over time. So old-growth is not in danger of "extinction," as some would have you believe.

I appreciate the opportunity to testify. I would be happy to respond to any questions the Subcommittees might have.

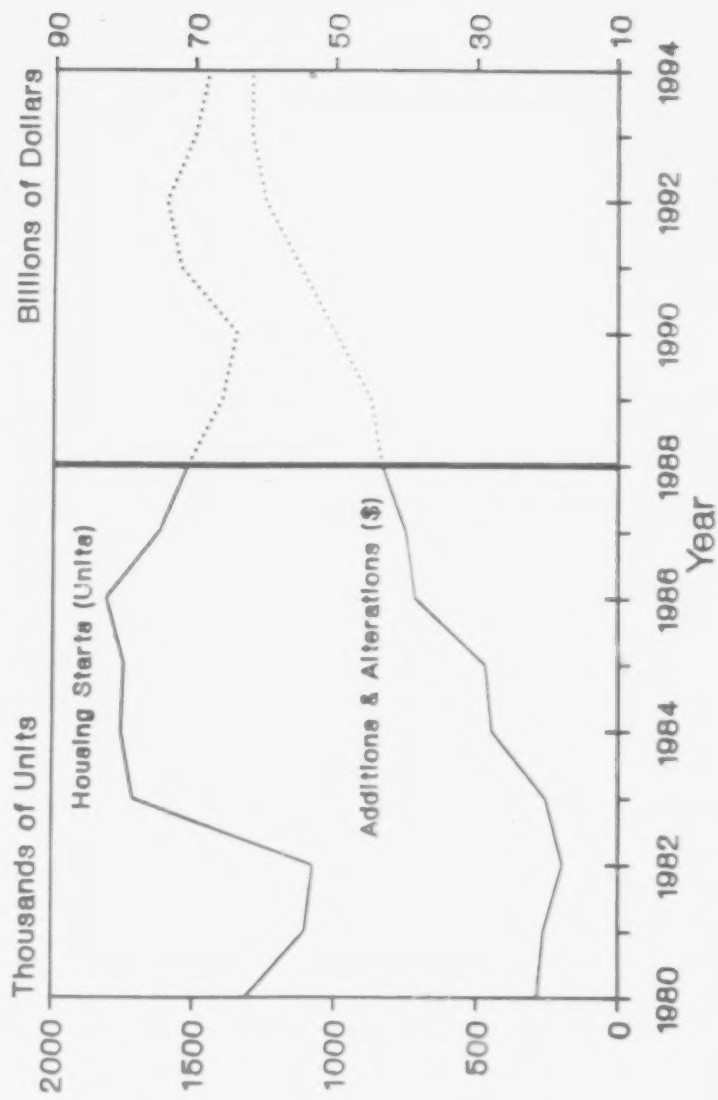
(Attachments follow:)

Chart 1
U.S. Softwood Lumber Demand



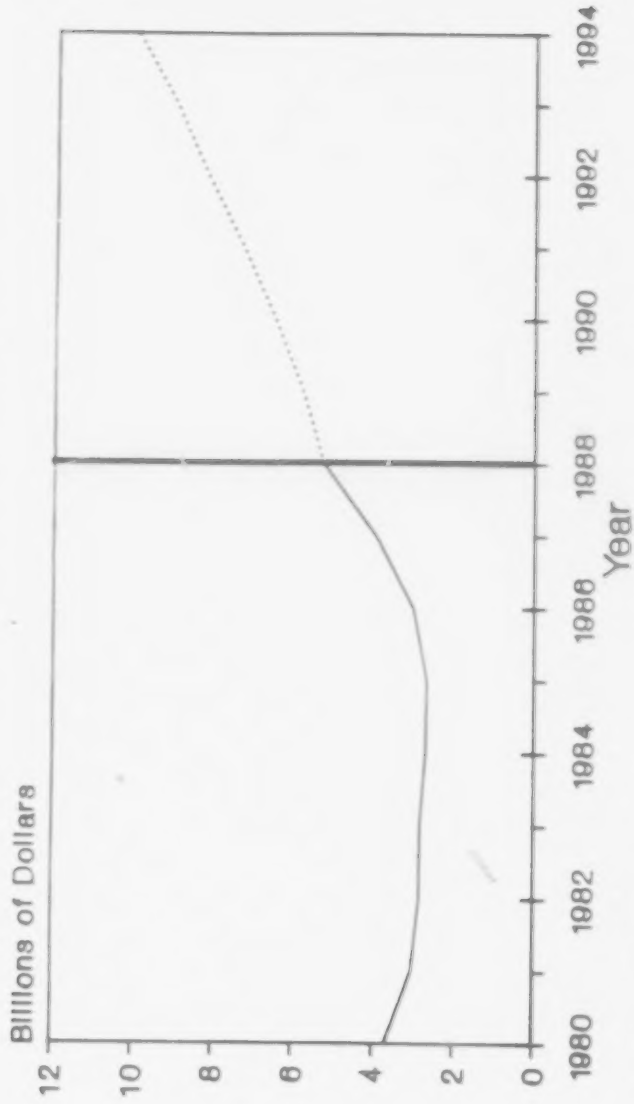
Source: NFPA

Chart 2
Softwood Lumber Demand Indicators



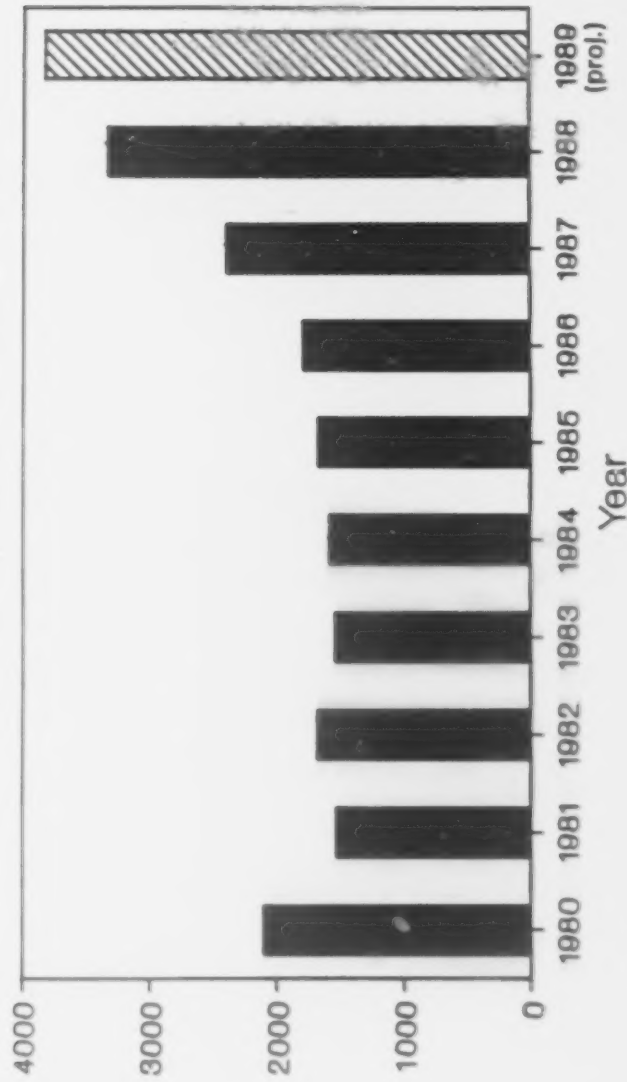
Source: Commerce; NFPA

Chart 3
Value of U.S.
Wood Product Exports



Source: FAS/Commerce

Chart 4
Exports of Wood Products
to the Pacific Rim



Source: FAS/Commerce

STATEMENT OF CHARLES G. LEVIN BEFORE THE HOUSE AGRICULTURE SUBCOMMITTEE ON FORESTS, FAMILY FARMS AND ENERGY, AND THE HOUSE INTERIOR SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS, JUNE 20, 1989.

I, Charles G. Levin, am the staff attorney for Headwaters, Inc., a non-profit organization in Southern Oregon devoted to protecting critical watershed areas in Southern Oregon, and to holding the BLM and Forest Service accountable for their forest-planning decisions. Headwaters has actively participated in negotiations, forest planning, administrative appeals, and litigation. We believe that sustained-yield management should not be perpetuated at the expense of other multiple use resource values of the kind enumerated in the Federal Land Policy and Management Act (FLPMA) - namely, natural scenic, scientific and historical values, recreation, watershed, wildlife and fish.

Western Oregon contains a peculiar checkerboard pattern of land ownership - the result of congressional land-grants to, then revestment of those grants from, the Oregon and California Railroad and Coos Bay Wagon Road. Hence, "O&C" land is usually intermingled with private land (owned, in large part, by timber companies¹), and with "public domain" land - land which has never been granted to other interests, but which has remained in government ownership. In 1977, there were 2,564,556 acres of O&C land in Western Oregon,

¹ "The large contiguous areas of timberland in Oregon that went from the public domain to private ownership were usually acquired by forest industry. In Oregon three of every five acres of private timberland is owned by forest industry." Gedney, "The Private Timber Resource," published in "Assessment Of Oregon's Forests (1988) (A Collection of Papers Published By The Oregon State Department of Forestry)" at 54.

"The O&C Lands," Bureau of Governmental Research and Service, 1981 at 48, 80.8% of which were administered by BLM. Of O&C and Coos Bay Wagon Road (CBWR) land classified as "commercial forest land," BLM administered 83.3%, id at 54.

Much of the O&C, public domain, and CBWR land which BLM administers is prime timberland² which traditionally supported seemingly limitless stands of old-growth trees. However, the land has also been recognized for its ecological importance; it provides crucial habitat links between the Oregon Coast range to the west and the Oregon Cascade Mountains to the east, and contains crucial low-elevation old-growth.

Before settlement in the mid-1800s, fifty to seventy five percent of the Douglas Fir-Western Hemlock forests west of the Cascades was probably old-growth Douglas fir (Munger 1930, Harris 1984). However, if current rates of cutting on BLM lands continue, old-growth would remain on only 3% of the available timberland in just ten more years. All old-growth but a small amount of set-asides would be gone by 2030. (Franklin et al. 1981; Luman and Nietro 1980).

"Mature growth" (defined as 100-199 year old stands) is under similar attack. While most recent BLM inventories indicate that 22% of available BLM timberland in Western Oregon is classified as

² In the Medford District, however (nearly one million acres), even lands in the timber base (480,658 acres this decade), while valuable ecologically, are not prime timberlands. Rather, they typically suffer from the hot, dry climate, draughty soils, steep slopes, and hence severe reforestation problems.

"mature," (Ohmann, Carleson, Lee, Oakley, 1988), if current cut rates continue, only 15% would remain by the year 2000 and 3% by 2030. Hence, unless BLM's policies shift dramatically, the forests of the future will be highly regulated young tree farms, almost entirely devoid of either mature or old-growth timber.

Old-growth on BLM lands is fragmented to a greater extent than that on national forests. Because islands of old-growth may not be capable of maintaining high levels of species diversity (Harris et al 1982), further fragmentation should be avoided.

BLM's management in Western Oregon has not accounted for the tremendous overcutting of the private lands which often adjoin BLM land.³ It hence neglects the cumulative impacts of its own management actions in conjunction with those of industrial private owners. Instead, it is rigorously implementing policy statements and timber management plans which direct it to "liquidate" old-growth timber to the tune of 18,000 acres per year in Western Oregon. At current rates of "harvest," all but 19 acres of old growth timber in the Jackson/Klamath Sustained Yield Units' timber base (258,600 acres) would be eliminated within 30 more years, Jackson/Klamath Final Timber Management Plan EIS at 3-44, and old-growth timber in other BLM westside districts would be "liquidated"

³ Eighty percent of manageable stands owned by private owners are 50 years old or less, with almost two thirds of these stands less than 30 years old. (Gedney, 1988). "Virtually all of the older stands on private timberlands are now gone, and there is little economic incentive to manage for older forests." (Ohmann, Carleson, Lee, Oakley, "Status of Forest-Related Wildlife And Fish Resources In Oregon," 1988).

even sooner. This "liquidation" is wasteful, unnecessary, is irreparably destroying a vast and still-poorly-understood ecosystem, is in violation of the agency's sustained -yield mandate, and should be immediately stopped.

I. BLM's Monitoring Records For This Decade's Timber Program Reveal That Environmental Degradation Is Significantly Greater Than Was Originally Forecasted

Forty one timber sale Monitoring Reports produced by Medford BLM throughout this decade reveal that BLM is not able to live up to its promises of responsible stewardship. Due to poor judgment, inadequate workforce, inadequate contract administration, inadequate budget, and other factors, its timber program is wrecking havoc with the environment. Headwaters has just completed a report after a careful systematic review of the Medford District reports. This is included as attachment 1 to this testimony. The Monitoring Reports consistently note that environmental degradation due to logging was more severe than originally anticipated: Riparian zones were heavily impacted, streams were severely damaged, prescribed burns got out of control, and mitigation measures which were adopted in timber sale records of decision were not implemented. These Reports clearly refute BLM's claims that it is "removing" old-growth timber under a policy of sustained-yield which is in harmony with principles of multiple use, as the Federal Land Policy and Management Act requires. Section 1702(h).

II. BLM Has Been Overcutting And Continues To Overcut

BLM is obligated to manage its lands under the principles of

BLM is obligated to manage its lands under the principles of multiple use and sustained yield. Federal Land Policy and Management Act, Section 1701(a)(7), 1712(c)(1), Oregon and California Revested Railroad Grant Lands Act, 43 U.S.C. Section 1181a (O&C Act). Yet, Medford BLM has expressed in court (in Headwaters v. BLM, 9th Cir. No. 88-3538, appeal pending) that multiple use means no more than that the agency has total discretion to manage as it sees fit, even if that means liquidating all old-growth timber permitted by law.⁴ Less than 1% of Medford BLM suitable timberlands were removed from the timber base this decade to protect other "multiple use" resource values. Jackson/Klamath and Josephine Timber Management Plan Final EISs, Figure I-6. BLM maintains that such a skewed management regime is within its discretion and comports with a multiple use management philosophy.

By maximizing the cutting of old-growth timber, however, BLM is violating not only the principle of multiple use but the principle of sustained-yield. In its simplest terms, "sustained-yield" means that the agency may not offer for sale more volume than it can grow. Yet, one current decadal BLM timber Plan admits that BLM is selling ("liquidating") old growth timber eight times

⁴ BLM relies, inter alia, on the Sierra Club v. Harden case, 325 F. Supp. 99 (D. AK 1971) which found that the Multiple Use Sustained Yield Act did not limit the Forest Service's authority to manage the Tongass National Forest overwhelmingly for timber production: "Congress has given no indication as to the weight to be assigned each value and it must be assumed that the decision as to the proper mix of uses within any particular area is left to the sound discretion and expertise of the Forest Service."

faster than timber is growing to replace it. Josephine Timber Management Plan FEIS at 1-19: ("As shown in Figure 1-4, the proposed allowable cut is approximately eight times the present current annual growth. This difference is primarily due to the preponderance of overmature stands in the JSYU . . . ") Another decadal timber management plan admits that BLM is selling ("liquidating") old-growth timber four times faster than timber is growing to replace it, Jackson/Klamath FEIS at 1-22: ("In the JKSYUs the proposed allowable cut is approximately four times the present current annual growth. This difference is primarily due to the preponderance of overmature stands in the JKSYUs . . . ")

BLM attempts to justify this radical management regime by taking timber volume "credits" for intensive management practices (such as herbicide applications, gopher control and commercial thinning) and using those "credits" to cut a larger volume of timber now in the hope that the intensive management practices will make up the difference later by increasing growth. The efficacy of the intensive management practices, however, is completely unproven and unsupported by available operational data. By liquidating the ancient forests, BLM is hence playing a game of Russian Roulette with the old-growth forests and its many inhabitants. Ordinary prudence dictates that BLM should at the very least cut no more old-growth than it can and will replace. Such old-growth cut-levels should be based entirely on operational data and the best scientific methodology.

III. BLM Protects Multiple Use Resource Values Primarily On Nonproductive Timber Sites. This mode Of Management Has Forced Citizens To Resort To Protests, Appeals, and Lawsuits

BLM's O&C Forest Resources Policy Statement (FRPS) for Western Oregon, attachment 2, states, "Lands classified as suitable for timber production shall be managed for timber and wood product production, to the extent possible, under the requirements of law." Only when "nonsuitable lands cannot adequately provide for other uses set forth in the O&C Act and other applicable legislation and Executive Orders," may "suitable lands" be managed to meet the needs for maintenance of water quality, protection of wetlands, conservation of specifically identified habitats for federally listed threatened and endangered species, and protection of scenic areas. Id. The FRPS is a concise way of stating that BLM has declared critical old-growth habitat off limits for many species, including the spotted owl, that depend on it to survive.

BLM's own planning documents for the current decade admit that the acreage left over, after logging, for old-growth-dependent species such as the spotted owl is both unquantified and of inferior quality. See, for example, Jackson/Klamath FEIS at 3-30:

There are some 94,500 acres of lands that have been withdrawn from harvest that contain some old growth. The majority of these lands are in either low intensity or limited forest management status and have not been inventoried in place. In general, while these lands do contain some old growth, the quality of the habitat is not equal to the old-growth habitat found on the high intensity lands. However, if it is distributed across the SYUs, it should provide some habitat for old-growth dependent species.

BLM was unable to evaluate the likely results of its timber program, JKFEIS at 3-41 ("Additional northern spotted owls in excess of the eight pairs may have their habitat reduced or eliminated if it is in a sale area. The results of this action are unknown.") Yet, it boldly concluded that the species would only be "moderately" affected by BLM actions. Id. This kind of seat-of-the-pants resource management is in direct contradiction to the conservation mandate of the Department of Interior and BLM, as exemplified in BLM FACTS, Oregon and Washington, 1987:

BLM programs provide for the development and use of the public land and its resources under principles of multiple use and sustained yield while maintaining and enhancing the quality of the environment. (Emphasis added).

BLM has been propounding optimistic but unverified assumptions and conclusions, many of which totally ignore, or else fly in the face of, scientific evidence. The policy decision to maximize the liquidation of old-growth timber on an unsustainable basis has forced citizens to use the adversary process in order to achieve a more responsible balance between commodity and non-commodity interests. For example, a broad coalition of local and national groups challenged BLM in court when BLM insisted that it need not revise its land management plans based on new significant and probably accurate scientific information concerning the unfortunate plight of the spotted owl - an indicator species for the health of the old-growth forests. At least until the federal district judge ruled that BLM's refusal to consider more recent, significant, and probably accurate scientific information was arbitrary, capricious,

and not in accordance with law, BLM strenuously insisted that its decision not to supplement old plans was legal and within its discretion. But had BLM taken its conservation mandate seriously to begin with, it would at least have made that decision based on good science; policy choices would then have been subject to reasonable scrutiny. Instead, BLM chose to hide essential information from the public, even though it knew that its own actions were contributing to the massive loss of owl habitat, and hence to the possible extinction of the spotted owl in the future.⁵

It is conceivable that certain old growth forest stands will be protected in the future as a result of the possible listing of the spotted owl as "threatened" under the Endangered Species Act. But it is extremely unfortunate that the only mechanism available for saving a valuable resource becomes available only when that resource is on the verge of being exhausted.

IV. Aside From The Endangered Species Act There Is No Law Which Provides Substantive Protection For Old-Growth Forests On BLM Lands

⁵ That BLM knew this is beyond question. When the U.S. Fish and Wildlife Service recently announced that the spotted owl deserved to be listed as a threatened species under the Endangered Species Act, it stated:

[O]nce an in-depth analysis was completed, the [status review] team was struck by the remarkable consistency in the data that have been collected and reported over the years on this species. The team could find no data that contradicted any of the studies, data, or conclusions that have been made on this species, regardless of the source of those data. This point cannot be over emphasized; the data have been and continue to be consistent in reported findings.

The Fish and Wildlife Service also noted that "[m]ore data may exist on this species than any other species considered under the Endangered Species Act."

Because BLM considers that it has total discretion under FLPMA and the O&C Act to manage in accordance with how it sees fit, more than 99% of its suitable timber lands have become eligible for "liquidation" by their inclusion in the timber harvest base. JFEIS and JKFEIS, Figure 1-6.⁶ When land finds its way into the "timber harvest base," there is no substantive law, save perhaps the Clean Water Act and Endangered Species Act, which precludes the cutting of any given tract, even if it contains ecologically significant values.

A. The O&C Act Does Not Provide Substantive Standards

The O&C Act is a multiple use law, enacted to curb forest practice abuses encouraged by the Chamberlain-Ferris Act of 1916. See generally, Dodds, The Oregon and California Lands: A Peculiar History Produces Environmental Problems, 17 Env't. L. 739 (1987). However, the Act provides no substantive standards which guide BLM in decisions to cut or not to cut a given tract of old-growth. Similarly, the FLPMA, BLM's organic act, prohibits BLM from taking any action which would incur "unnecessary or undue degradation of the lands." Section 1732. However, it provides no guidance as to when degradation is either "unnecessary" or "undue."

B. Any Substantive Standards Of The NFMA Which Guide The Forest Service Do Not Apply To The BLM

Even the de minimis standards of the National Forest

⁶ This excludes the proportionately minuscule amount of lands protected by wilderness designation or which fall within Wild and Scenic River corridors.

Management Act which require the Forest Service, in all management prescriptions, inter alia, to conserve soil and water resources, 36 C.F.R. Sections 219.27(a)(1), minimize serious or long-lasting hazards from flood, wind, wildfire, erosion, or other natural physical forces, 219.27(a)(2), prevent or reduce serious, long lasting hazards and damage from pest organisms utilizing principles of integrated pest management, 219.27(a)(3), protect streams, streambanks, shorelines, lakes, wetlands, and other bodies of water, 219.27(a)(4), and provide for and maintain diversity of plant and animal communities to meet overall multiple-use objectives, 219.27(a)(5) do not apply to BLM. In fact, no other like laws or regulations apply to BLM. Rather, BLM regulations provide for almost limitless flexibility and discretion in making policy choices and site-specific decisions. Any substantive standards promoted through guidelines do not bind BLM, because guidelines do not have the force of law as do rules and regulations.

C. Procedural Laws Are Crucial, But Do Not Substitute For Substantive Law Because They Do Not Compel BLM To Make Good Decisions

The National Environmental Policy Act is a crucial procedural law, designed to hold federal agencies accountable for their actions. Environmentalists have used this law repeatedly to challenge agency actions in Oregon and throughout the Northwest. Enforcement of this law by citizens has repeatedly revealed that federal agencies too often do not plan in accordance with the lofty goals and careful environmental considerations of the Act.

Yet, it is widely recognized that the NEPA does not compel either a particular result or a wise decision; it requires, in sum, only that an agency take a "hard look" at its action and disclose that "hard look" to the public and to the decisionmaker. Hence, one can not argue, under the NEPA, that BLM may not cut ecologically critical old-growth habitat; one may argue only that the effects of such destruction must be fully disclosed.

While the NEPA serves a critical purpose, it does not itself suffice to preserve the increasingly small remnant of ancient forests on BLM land. As old-growth forests become increasingly scarce and fragmented, it is less and less acceptable to have only laws which completely allow the destruction to continue.

Hence, further positive legislation is absolutely mandatory in order to ensure the continued viability of old-growth forests and the forests' inhabitants.

V. Conclusion

An environmental crisis of monumental proportions exists in the Pacific Northwest as a result of old-growth liquidation and forest fragmentation caused, in large part, by BLM management. Old-growth liquidation has been a fundamental tenet of BLM policy statements and the Plans which adhere to the statements. Ironically, old-growth liquidation is causing the very problem it was supposed to cure - community instability. By overcutting the finite old-growth resource, BLM is contributing to a timber supply crisis and is forcing increasingly more citizens to use the adversary process to protect the last remnants of the old-growth

forests.

As BLM's own timber plans project, the time will soon arrive where no further old-growth timber will exist to be cut, even if spotted owls and other environmental factors played no role whatsoever. But when the old-growth runs out, there is likely to be massive economic dislocation and community disruption unless solutions are sought immediately to ease the transition to a "second growth" economy. Instead of keeping cut levels artificially high and unsustainable, the Congress, environmentalists, and BLM (if it is willing) should rigorously explore alternative means to achieve the goals of environmental protection and community stability.

(Attachments follow.)

SIGNIFICANT ENVIRONMENTAL PROBLEMS IN BLM TIMBER SALES AS
REVEALED BY MONITORING REPORTS PREPARED BY BLM-MEDFORD DISTRICT

The Medford BLM's timber management plans state that "[e]valuations of field operations are conducted periodically to assure that all aspects of policy and procedure are adhered to and an acceptable level of compliance is attained."

To carry through, in part, with this commitment, BLM evaluates certain completed timber sales and produces "Monitoring Reports" to document whether BLM's timber sale program is proceeding according to plans and expectations. Headwaters has conducted an in-depth review and analysis of Medford BLM's available Monitoring Reports for the 1980's.

The results of those reports are disturbing. They clearly document that an already-fragile environment is suffering adverse environmental harm often far in excess of that which BLM had already predicted in its ten year plans. (For examples of the Jackson/Klamath timber management plan's most relevant pages in this regard, see attachment 1).

Part of the reason that impacts are greater than were anticipated by the 10 year plans is that land allocation decisions were formulated upon a very limited set of criteria: the decision to allocate land to timber production is based almost entirely on the site's ability to grow timber on a sustained-yield basis. Protection of non-timber resources was

far and away a secondary consideration.¹ BLM had predicted, in 1979 and 1980, that 209,842 acres of its commercial forest land in the timber base (out of 426,536 acres) were "Non-Problem Sites." Jackson/Klamath Final Environmental Impact Statement at 1-9 (JKFEIS) and Josephine Final Environmental Impact Statement at 1-9 (JFEIS). However, after a re-investigation of its Timber Production Capability Classification (TPCC) later in the decade, the same district found that only 477 acres were "non-problem." Attachment 2. Much of the rest of the land previously considered "no problem sites" actually consists of steep slopes, shallow, draughty, erosive soils; these conditions were not adequately analyzed site-specifically in either the comprehensive timber plans or in "site-specific" environmental assessment (EA) statements. Both the lack of analysis and misanalysis has taken a huge toll on the environment, and has raised serious doubt about the practicality and wisdom of BLM's timber program.

The Monitoring Reports merely reach the tip of the iceberg; BLM has not produced quantification of the actual (versus the theoretical) problems on the entire District. Hence, we can only speculate how severely logging has already damaged the entire Medford District forest lands. The Monitoring Reports, which are

¹. That land allocation decisions were based almost entirely on criteria relating to growth potential rather than on a careful and balanced consideration of different resource values is evidenced by Figure 1-6 of the JFEIS and JKFEIS; of the land which is capable of growing timber on a sustained yield basis ("high intensity" land), only 14 or less was "excluded for multiple use reasons" from the timber base.

presumably representative of the true effects of BLM's timber program, indicate that the short-term and long-term environmental degradation caused by the BLM's timber program is unacceptable in that logging operations are causing erosion, irreversible soil productivity losses, degradation to water quality (sometimes violating Oregon Water Quality [Clean Water Act] Standards) and damage to stream channels and riparian areas.

In many instances where problems of an on-going nature were noted, the Monitoring Reports recommended that no further monitoring occur, or stated that BLM does not have adequate funding to take care of the problem.

Also disturbing was BLM's consistent failure to identify streams in project areas. In one sale alone (Snake Swamp), the Monitoring Report revealed that the BLM timber sale team failed to identify twenty four class II intermittent streams in either the sale EA or the timber sale contract. Because numerous streams were not identified, they also were not protected.

In addition, the Reports indicate that measures included in EAs and timber sale contracts to insure the protection of sensitive environmental areas are often either completely ignored, or not adequately enforced, thus casting doubt upon the integrity of BLM's timber sale EA predictions and prescriptions.

Moreover, it is noteworthy that the Monitoring Reports did not, except in one case, discuss cumulative damage to watershed health, or to wildlife and plant diversity caused by fragmentation of habitat; nor did the reports consider the

combined effects of cutting on private and public lands in a single drainage. Therefore, the Monitoring Reports, even though they wave a bright red flag over BLM's ability to adhere to its conservation mandate, in all probability greatly understate the adverse effects of the BLM timber program in the Medford District.

Further, some of the monitoring was conducted before activities on the sale site were completed; on several of the sites, all the cutting had not yet been completed. On others, prescribed burning was not completed; the omission of these factors means that BLM sometimes understated to an even greater degree the effects of its actions. Nonetheless, in many of the reports, BLM did not recommend any further monitoring.

Finally, the Monitoring Reports were usually completed before reforestation efforts had begun. Headwaters intends to complete a review of BLM operational reforestation records in the near future to complement this report. Notably, however, several of the Monitoring Reports warned that reforestation efforts would be jeopardized as a result of unanticipated effects caused by logging activities.

BLM's explanations for the greater-than-expected environmental damage ranged from rational to chilling. On the rational end of the spectrum, some of the unanticipated impacts were due to unforeseen and unpredictable human error - a factor completely ignored in the agency's planning. On the chilling end of the spectrum, BLM stated, in one report, "[a]pparently due to

the press of other work, strict adherence to mitigating measures did not occur. The result was adverse impacts much greater than anticipated." Reports for several other sales also remarked that necessary mitigation measures, relied upon by the Environmental Assessments to compensate for predicted damage, would not be implemented because funds were lacking.

The Monitoring Reports sadly verify citizens' long-standing concerns and warnings regarding BLM's forest management. In short, BLM planned a program which was sure to fail (in terms of environmental protection), unless an unrealistically high number of pieces, such as budget, workforce, human infallibility and impeccable judgment, fell together perfectly. Not surprisingly, some of the pieces have not.

Despite these problems, BLM has not changed its basic approach to timber management. When "the press of other work" or lack of funds preclude sound management, the environment suffers. Although BLM has probably used some of the information gathered in its Monitoring Reports to try to improve its program, the Monitoring Reports from 1984 onwards show even greater adverse environmental effects than the 1980 and 1981 Reports show. This suggests that the Reports, in and of themselves, do not cause BLM to mitigate the effects of its timber program to levels expected by its Plans, or to levels acceptable to the public at large. Instead, BLM continues to proceed on the assumption that budget, workforce and proper judgment will be forthcoming.

SUMMARY OF MONITORING REPORTS

The forty one timber sale Monitoring Reports from the Medford District for FYs 1980-89 revealed the following problems:

a) Excessive Adverse Environmental Effects:

In at least 13 of the 32 sales monitored between 1980 and 1985, the Monitoring Reports recognized that the EA underestimated the amount of adverse environmental effects.

"Thirteen" is an extremely conservative figure; the Monitoring Reports for other sales gave a clear impression that the EA underestimated environmental effects. However, this was not always stated explicitly, as it was in the thirteen Reports.

Seven of the nine Reports prepared after 1985 also revealed that impacts were most certainly greater than BLM anticipated.

b) Excessive Erosion:

In 21 of 41, erosion/sediment levels were greater than those anticipated by the sale EA.

c) Inadequate Snags And Cull Trees

In at least 22 of 41, an inadequate amount of snags and cull trees were left on the site for wildlife.

d) Unanalyzed Changes To Sale:

In 13 of the 41 sales, the EA either failed to analyze key components of the proposed action, or the BLM simply enlarged the scope of its proposed action by cutting trees from more acres or by building more roads without revising the EA, thereby providing

no environmental analysis for the new action in accordance with the National Environmental Policy Act.

e) Damaged Riparian Zones:

In 19 of the 41 sales, riparian or wet areas were damaged beyond BLM's expectations. Damage was caused by shade trees being cut, logs dragged across creeks, machinery operating within wet areas, accidental burning of riparian buffer zones, and failure to observe stream buffer widths.

f) Damaged Soil and Site Productivity:

Numerous other problems consistently recurred, such as prescribed burns that were too hot, leading to excessive damage to soils and to vegetation in riparian areas.

Following is a year-by-year summary of the Monitoring Reports.

Year By Year Summary:

1980

Number of Sales Evaluated: Six (including a salvage sale), plus a rehabilitation plan.

Summary: In five of the six sales, multiple problems arose, some of them extremely serious. The report on the sixth sale, the Lost Lake Fire sale, consisted of only two paragraphs; perhaps a

more complete report would have revealed the same kind of problems common to the other five sales.

Common Problems:

- a) The EA did not address certain types of impacts at all;
- b) The EA underestimated the severity of those impacts it did address;
- c) Mitigation measures to compensate for anticipated damage were completely or partially unsuccessful;
- d) The EA made significant misrepresentations;
- e) The project had not been completed, so all adverse effects were not yet apparent.

The quantity and quality of discussion of the Monitoring Reports varied greatly, making it difficult to compare all the sales. However, four of the six Reports acknowledged that the EA either understated the impacts to wildlife, or did not even attempt to address the impacts.

Similarly, in four of the six sales, erosion and/or sediment increases were either greater than the EA anticipated, or were inadequately addressed by the EA.

In one sale (Anatuvuk Wallace), bucked logs entered streams, streambanks were damaged as logs were yarded, subsequent winter streamflows caused erosion at exposed soil areas, woody debris removed from the stream reentered the streams from adjacent steep slopes, and "[l]arge amounts of debris will probably continue to enter the streams for the next several years." The same EA "was

difficient [sic] in recognition of potential impacts on wildlife due to snag felling and clearcutting." Inadequate shade was left on the site, causing higher stream temperatures. "Clearcutting adjacent to two previous clearcut units resulted in large wildlife foraging units with very little adjacent cover." Burning one of the units of the sale "severely impacted" both sides of a stream, destroying all green vegetation, and removing barriers that aided in the interception of debris. "Much gravel, sediment and partially burned logs were deposited in stream channel; stream shade totally disrupted."

Another Monitoring Report revealed that the EA misrepresented the potential adverse impacts due to logging:

Also the statement in the Analysis of the Proposed Action stating that 'The logging activities should not significantly increase the erosion because of the already bad conditions existing' is not correct. A correct statement would be that due to removal of protective ground cover by the Grave Creek Fire, logging activities could significantly increase erosion.

1981

Number of Sales Evaluated: two; one of these, the North Mainline sale, was evaluated before logging was completed.

Summary: Nonetheless, the preliminary monitoring in that sale already revealed that trees had been felled across a stream contrary to contract specifications, that stream cleaning had not been effective as logging slash had not been piled above the high

water mark, and that the riparian zone had been adversely impacted more than anticipated.

The Monitoring Report for the second sale, logged by Gregory Forest Products, revealed no serious problems.

1982

Number of Sales Evaluated: Five; one of them (Rocky Williams progeny test site) before logging operations were concluded.

Summary and Common Problems: Similar to those encountered in previous monitoring:

- a) Required analyses in the EA were totally missing;
- b) Mitigation measures were not accomplished;
- c) Stream buffers were not observed;
- d) Erosion and sedimentation were greater than anticipated;
- e) Unanticipated loss of soil productivity occurred;
- f) Reforestation failure was noted;
- g) Inadequate numbers of standing snags for wildlife were left.

Only one sale seemed to go according to plans and expectations. Although only minimal problems were described for one other sale (Rocky Williams progeny test site), that site was evaluated before prescribed burning had been accomplished, and so results were premature. Further, the Rocky Williams site is a small progeny test site, consisting of only one unit.

In one sale (Bear Fox), BLM built an additional spur road in the buffer of the Klamath River Canyon without disclosing that they were doing so, and without analyzing the effects of that

action in the sale EA or anywhere else.

1983

Number of Sales Evaluated: five

Common Problems:

- a) Excessive erosion and sedimentation of streams occurred;
- b) "Controlled" fires burned too hot;
- c) Excessive harm occurred to riparian zones;
- d) Streams were not protected or even identified;
- e) Inadequate numbers of snags were retained for wildlife.

The Monitoring Report for one sale (Wilson Creek) states that the drainage did not receive adequate protection. Hardwoods were not preserved, and additional measures were necessary to protect a unit from erosion. Because of BLM's failure to identify three intermittent streams on the maps, tractor skid trails crossed all three stream channels. Some erosion had already resulted from streams cutting new channels through soil material deposited in streams.

In another unit, many of the original hardwoods in the riparian zone had been unintentionally knocked over during cutting and yarding operations.

In the second sale evaluated (Salt Creek), BLM again failed to identify an intermittent stream on the maps.

In two of the sales, inadequate snags were left for wildlife.

In the Geppert Butte sale, BLM failed to block the roads, as

the EA prescribed. The Monitoring Report stated that "serious impacts to wildlife could occur in critical deer winter range" if those roads were not blocked, and that "[a]dverse impacts to wildlife and soils are somewhat greater than predicted in the EA."

In two of the five sales, hot burns accidentally occurred. Three units of these hot burns were on shallow, gravelly soils with some rock outcrops. One Report (Summit) stated, "[b]ecause of disturbance caused by yarding and loss of organic matter through burning, gravel has moved downslope threatening seedling survival." That sale also left only 10-15 snags, instead of the 68 that the MFP (Management Framework Plan) and District guidelines require. The report acknowledges that "[t]he reduction in number of snags left from the planned amount indicates lack of protection or monitoring provided during logging operations."

1984

Number Of Sites Evaluated: Eleven; because of the extensive evaluation, the reports from 1984 are statistically the most meaningful, and most likely best characterize BLM's overall timber program.

Summary and Common Problems: The Reports evidenced even more extensive problems than occurred in previous years, including:

- a) Failure of the planning documents to identify streams, stream channels, fish populations, or springs (4 sales);
- b) Stream buffers were not observed (3 sales);

- c) Full log suspension was not accomplished, leading to excessive damage to riparian areas (3 sales);
- d) Protection of class 3 and 4 streams was inadequate, leading to excessive erosion and sediment loading of streams (at least 3 sales);
- e) Raised water temperature beyond Clean Water Act standards (3 sales);
- f) Inadequate numbers of snags and cull trees were retained for wildlife, in violation of MFP and district standards (8 sales);
- g) Management decisions were not assessed or analyzed by the EA or any other planning document (at least 3 sales).

Five of the Reports also stated that the associated EAs understated the impacts. The Monitoring Reports for 1984 cast serious doubt upon the integrity of BLM's environmental analysis process, and upon its ability to carry through with its timber program in a fashion consistent with responsible stewardship.

The URN Aim sale Monitoring Report revealed that 1) because of BLM's failure to identify a class 2 stream² immediately adjacent to a sale unit, "riparian values were not protected to the degree that they could have been"; 2) because full log suspension across streams was not accomplished in one unit, additional uprooted hardwood and logging slash was deposited in

². The relevant Management Framework Plan defines a Class 2 stream for the Josephine Sustained Yield Unit as "[s]treams that provide habitat for resident trout, but not for anadromous fish species," and for the Jackson/Klamath Sustained Yield Units as "[s]treams that provide habitat for small to moderate numbers of resident trout only."

the riparian zone; 3) class 4 streams were not protected at all, as the EA and contract stipulations guaranteed. (Though in two units, "hardwoods along channels were slashed and felled into the channels," BLM claimed that "[t]he protection measures required by the contract were not necessary except for immediately upstream of the culverts in units 26-4 and 35-2"); 4) because of broadcast burning, exposed soils "will tend to move into the channel due to gravity and rainfall"; 5) because of BLM's misclassification of streams (class 4³ should have been considered class 3⁴), inadequate protection was given to streams, leading, in one stream, to temperature increases which exceeded Oregon Water Quality Standards; 6) snags and cull trees did not meet EA and MFP requirements "and will adversely impact cavity dwelling wildlife species on these sites in future years."

After documenting these particular failures, the Report states "Grants Pass Resource Area, you did a good job. Keep up the good work."

³. According to the Management Framework Plan, Class 4 streams are intermittent streams that "carry water most of the year, but cease to flow during the dry season because evaporation and percolation into their stream bed and banks exceed the available stream flow. They have well-defined channels. Channels showing active scouring or washing are included in this category even though they may flow only during or immediately after periods of precipitation or the melting of snow. Intermittent streams normally lack vegetative litter except during the fall or the year, indicating stream flow sufficient to move material during runoff."

⁴. Class 3 streams are perennial streams that "normally flow year long, except during periods of extreme drought. They have well-defined channels and show signs of washing and scouring. Streams appropriated for domestic use are included in this category if they do not have direct fisheries values."

The report concluded by stating that an additional cutting unit was added by contract modification, but was not included in the EA: "Several actions taken in connection with the URN Aim timber sale were not in compliance with environmental procedures as they occurred without an environmental analysis or categorical exclusion screening."

The Monitoring Report for the Walker Return sale stated that inconsistencies between the EA and contract requirements led to poor road construction which "will cause water quality problems over time." A large quantity of sediment had been deposited into a class 4 stream channel. The Monitoring Report stated that "[t]he EA was far too optimistic about successful riparian zone protection in the U-shaped draws found in this steep terrain. Although protective measures were taken, they were not as effective as was desired."

More specifically, a 50 foot buffer was found insufficient to protect a class II stream. "In order to properly protect the stream with the 80 percent sideslopes, a 100 to 200 foot no cut buffer would have been necessary. As it turned out, virtually no vegetation remained near the stream."

The Monitoring Report recognized, also, that stream temperatures were adversely impacted from cumulative cutting in the drainage over 10-15 years.

The report also conceded that:

[t]he EA did not recognize the adverse impacts that occurred to elk summer thermal cover and travel lands. . . . What is happening is that what was spatial and temporal distribution of cutting units are being combined through new harvest

units, creating a homogenous watershed of recently cut timberland. While blacktailed deer have fared [sic] OK, Roosevelt elk have suffered adverse impacts. Even more crucial will be the loss of additional thermal cover in adjacent watershed as the last remaining old growth patches are harvested in the next five years.

The Monitoring Report for the Low Quotient sale again revealed that the EA and contract failed to identify several streams in the sale area, and did not protect streamside vegetation along two units. This failure resulted in increased water temperatures and increased sediment entering the channels. In fact, in one stream, the temperature increased 12 degrees (from 50 to 62) over a distance of just 1,000 feet, in violation of the Oregon State Water quality standards. Another stream in the sale area experienced an increase of 10 degrees in a span of only 500 feet. Because of damage to the stream channel combined with channel instability, "[t]he channel will continue to erode until vegetation becomes re-established along the channel. These impacts were not recognized in the EA."

And in this sale too, the failure of the logger to achieve full suspension over stream channels in two units resulted in increased sediment.

Despite the aforementioned problems, the Monitoring Report praised "Keep up the good work".

This Monitoring Report concluded by reporting that a) six units fell "way short" of meeting snag and cull requirements, b) five acres in part of one unit which was to be excluded in order to protect wet, springy areas used as bear wallows were logged

with a tractor, and tractor trails were found through the wet boggy area; and c) "[t]he contract was modified by adding additional clearcut acreage which was not covered by environmental analysis."

The Snake Swamp sale Monitoring Report concluded that "[a]pparently due to the press of other work, strict adherence to mitigating measures did not occur. The result was adverse impacts much greater than anticipated." These adverse effects included 1) inadequate protection to riparian zones: much of the riparian zone was slashed, despite the EA's assurance that "significant" riparian vegetation would be protected; 2) failure to meet snag habitat requirements; 3) tractor operations "obliterated the drainage pattern" in one unit: "Yarding corridors in unit badly gouged and eroding into stream..."

In the Zelra⁵ [sic?] Dissolve [sic?] sale, a 100' buffer prescribed in the EA was ignored, and was actually reduced to a mere 10' near the road. This sale, too, experienced changed management decisions which were not documented in a supplemental decision or EA. Further, "[s]ome of the planted seedlings were planted in unripped, heavily compacted skid trails. This portion of the planting effort was wasted."

The 1984 sales detailed above fairly represent the remainder of monitored 1984 sales. All the other sales had significant

⁵. This may be a typo on BLM's part. The actual name may be "Zebra Dissolve"

problems, including:

- a) "severe" burns, despite that cool burns were required to minimize surface erosion and minimize losses in site productivity" (Wild Lily sale);
- b) "Stream flowing through one unit supports resident trout, but this was not identified in EA or URA (Unit Resource Analysis). . . . The previous sale really trashed the habitat." (Id).

1985

Number of Sales Evaluated: three

Common Problems:

- a) Streams were not identified on the contract map;
- b) A class 1 tributary stream was not recognized in the EA;
- c) The EA failed to assess impacts on soils and recreation, or to discuss mitigating measures;
- d) Directional falling away from stream channels was not accomplished;
- e) Mitigation measures to benefit wildlife were not accomplished;
- f) Prescribed burns were too hot, possibly leading to ravel and loss in soil productivity;
- g) Loss of vegetation along stream channels allowed soil material to enter streams;
- h) Insufficient funds to carry out necessary protective measures;
- i) Inadequate numbers of snags were retained for wildlife;
- j) A unit was added after the EA was written ("Therefore, there

was no environmental analysis of this unit.");

k) Prescribed stream buffers were entered, possibly leading to added erosion and sedimentation in streams.

All three of the 1985 sales were well short of meeting snag requirements. Although the Bruin II report praised the snag/wildlife tree retention, the accompanying chart clearly revealed that the sale fell far short of MFP and district goals for snag management. The results are skewed by the retention of 73 snags on one 27 acre unit; the remaining snag distribution for the other 9 units is extremely poor.

In the Ash Flat sale, a class 1 tributary stream was not recognized in the EA at all, and was given only a 50' buffer in parts. The Monitoring Report, incredibly, states, "[a]lthough this boundary does not meet the MFP requirement of 100 feet, it should be maintained during the next entry, also." (Emphasis added).

The Bruin II report noted the failure to install gates on four spur roads - a mitigation measure prescribed by the EA. It also noted the failure to comply with the mitigation measure of not felling timber between Feb. 1 and July 25 on two units, in order to limit disturbance to spotted owls during nesting season.

The Monitoring Report states that erosion is expected to increase due to a) too hot a burn in one unit; b) trees felled parallel to drainages with excessively steep sideslopes; and c) loss of vegetation along channel. Nevertheless, "[m]easures

necessary to protect stream channels from further soil movement are precluded by lack of funds."

The Monitoring Report for the Summit Prairie sale noted the shallowness of the EA: "[t]he EA identifies only minimal site specific resource information and impact assessment information." The report further noted that cumulative impacts assessment only included the combined impacts of cutting and roadbuilding for this particular timber sale, and stated: "[f]uture E.A.'s should continue to analyze the site specific impacts and also address cumulative impacts for timber sale activities over time and space." BLM's refusal to address such impacts, however, has led to litigation between Headwaters and BLM which is now pending in federal court.

1989 Reports

Number of Sales Evaluated: Nine

Common Problems:

1. Inadequate number of wildlife trees left on site (6 of 9 sales).
2. Streams not identified or protected (3 of 9 sales).
3. Increased stream temperatures on class 3 and 4 streams (4 of 9 sales).
4. More sedimentation than anticipated, due to roading, burning, inadequate protection to streams (5 of 9 sales).
5. EAs inadequate due to incomplete analysis (4 of 9 sales).

6. Riparian zone destroyed (5 of 9 sales).

One sale (Sikes Bare) assumed the use of herbicides for regeneration, despite the presence of a ban on herbicide use on federal lands and before any decision was made on a new Vegetation Management EIS:

Ponderosa pine seedlings have been used on most units in a higher percentage of the total seedling mix than is reflected by the original stand. This will be a complication in herbicide application (damage of 2,4-D to Ponderosa pine) and could reduce total yield through increasing pine as a percent of the stand.

In another sale's Monitoring Report, (Corral Relog sale), BLM modestly stated, "[t]he objective of protecting the riparian zone was not met." It noted that "severe burns occurred on all or portions of all units except for unit 2. Bare soil was ravelling on very steep, stream adjacent slopes."

The same sale EA "[f]ailed to identify that several proposed harvest units would be observable from the Rogue River and Rogue River National Recreation Trail."

The Report for the Centennial Ridge sale also noted that "[t]he method for protecting Class 3 and 4 streams in the sale area does not meet goals and objectives for these streams." Burning of several units killed the riparian vegetation. Other stream protection measures listed in the EA were not effective in meeting MFP stream management objectives for Class 3 streams.

The remaining vegetation (after logging) was not enough to provide shade capable of maintaining or reducing pre-harvest maximum summer stream temperatures as required in the stream management objectives. . . . An increase in maximum stream temperatures will occur in all Class 3 streams in the sale area due to the removal of adjacent shade cover. . . . Sediment has entered the streams from the steep side slopes adjacent to the channels. The slide on the lower road in unit 5-2A and subsequent sidecasting of material caused an increase in sediment not only to the Class 4 stream below the road, but also to Grave Creek which flows approximately 1,000 feet below the slide.

The Report for the Trailhead sale observed that hardwoods along the streams in one unit were slashed and felled into the channels. The Report aptly stated "This doesn't make much sense when we appraise for directional felling to protect those same hardwoods during the logging operations."

In another sale (Crooked Cedar), "although the presence of a Class 2 fishery stream on the southeast border of Unit 11-4A is mentioned in the EA, no protective measures were committed."

The Report for the Six Gold Elk sale stated, "[d]uring the pre-harvest timber sale review, it was noted that the trees reserved along the stream were not sufficient to meet EA requirements. Apparently this comment was not heeded as there are no conifers and only a few hardwoods remaining along the stream." The report noted that "[w]ater temperatures in the pools were 3 degrees F higher than those above the unit." Two class "3b" streams were not protected during logging operations, resulting in increased temperatures and sediment discharge.

Further, "[t]he new road construction along Gold Mt. Creek (631-9-21.1) needs maintenance work. . . . Soil has moved down the ditchlines and into the creek. Soil material from previous sloughing appears to have been deposited adjacent to the stream above the culvert. This will be a constant source of sediment into the creek this winter."

In general, Monitoring Reports frequently noted that contract specifications were ignored, or that the EA either failed to address, or else underestimated, various impacts.

In many cases, conscientious contract administration avoided potential serious impacts. This review does not attempt to detail every single BLM error: Headwaters' review is meant to alert the public only to those failures which, according to BLM, had a real, measurable impact on the environment.

We hope that this report will focus public attention on the scope of BLM's timber program and the inevitable problems that the program causes. The agency's own records speak for themselves. There is no question but that BLM's timber program is causing huge environmental effects, often far beyond those contemplated by BLM or the trusting public.

This report corroborates the need for a more conservative approach to forest management. We mean, by the word "conservative," that the BLM should not set such an ambitious timber program for itself without assurance of adequate funding.

staff time, and scientific knowledge. "Conservative" forestry would also predict the possibility of human error. Forestry is still more of an art than a science; mistakes are still made, and can be expected in the future. To the extent that BLM commits itself to a course of massive industrial forestry, those mistakes will be magnified throughout our region. Many such errors cannot be corrected for a very long time, if ever, even with increased spending. Some of the environmental mistakes we are causing through this program are irreparable.

Hence, Headwaters advocates an approach based on sound data and reasonable expectations; this would allow for some experimentation in the forest; we do not advocate that federal agencies use entire Districts, however, [the Medford District contains over 500,000 acres of forest land] as experimental test areas. The price to the environment is simply too great.

APPENDIX

Following is a list of timber sales for which BLM produced Monitoring Reports.

1980

Anatuvuk Wallace sale

Black Eye sale

Graves End sale

Woodford Salvage sale

Shell Rock sale

Lost Lake Fire sale

1981

North Mainline sale

Finger Rock Rd. R/W (Right of Way)

Middle Ck. timber sale

1982

Brass Monkey sale

Bear Fox sale

Rocky Williams Progeny Test Site

Blown Soda Salvage

Tunnel Salvage

1983

Wilson Creek sale

Salt Creek sale

Geppert Butte sale

Wilson Plot sale

Summit sale

1984

URN Aim sale

Walker Return sale

Low Quotient sale

Snake Swamp sale

Zelra [sic?] Disolve [sic?] sale

Late Snow sale

Clover sale

Quartz Box sale

Wild Lily sale

Flaming Delight sale

East Chinquapin sale

Bruin II sale

Ash Flat sale

Summit Prairie sale

1989

Sikes Bare timber sale

Corral Relog sale

Centennial Ridge Timber sale

Lincoln Creek Timber sale

Trailhead Timber sale

Crooked Cedar Timber sale - G.P. Resource Area

Pleasant Battle Timber sale

Six Gold Elk Timber sale

STATEMENT BY GEORGE A. ATIYEH
TO THE
COMMITTEE ON AGRICULTURE: SUBCOMMITTEE ON FORESTS,
FAMILY FARMS, AND ENERGY
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS: SUBCOMMITTEE ON NATIONAL
PARKS AND PUBLIC LANDS

June 20, 1989

My name is George Atiyeh. I am perhaps the most unlikely environmentalist you will ever meet. I am a Republican, from a political active Republican family, my uncle was the last Governor of the State of Oregon. I am a third generation Oregonian, and the fourth generation in a family that has been in the logging and sawmill business since before the turn of the century. Oregon is my home and always will be, and logging has been my roots.

I was president of a log trucking company, and vice president of a logging company for 8 years. I was the chief executive officer of a lumber brokerage that had annual revenues of over 12 million dollars. That same company operated a sawmill in eastern Oregon. I have seen the timber industry through boom times and through the timber depression of the early 1980's. I now operate an underground zinc-silver mine in the North Santiam River drainage in the Willamette National Forest, and in addition I own a flying service.

What has changed me from being an advocate of cutting down the ancient forest to wanting to protect it? The battle over the last of these big trees started for me like it does for many people, because of my love for one special spot, a place called Opal Creek. Opal Creek is the largest contiguous block of unprotected ancient forest left in the Western Cascade Mountains. Opal Creek has become an island in a sea of national forest clearcuts.

Opal Creek receives thousands of visitors a year; yet it continues to sit under the imminent threat of destruction, from industry's chainsaws, as it has for the last twenty years. The love of one place has pulled me into a battle that I never thought I would ever have to face. It has turned many of my friends against me and earned me more threats than I care to count. When the death threats failed to dissuade me from speaking out with the truth about our national forests, my children were harassed along with anyone who did business with me. I know now what it must have been like for the civil rights worker in the 60's. As the battle for Opal Creek progressed I was forced to learn more about the forest I have lived and worked in my whole life. I found that many of the things I believed about the forest were wrong, such as that the clearcutting Douglas-fir forest emulates the fires that nature periodically uses on the forest.

Most disturbing of all, I learned that Opal Creek was but a small part in a drama that was being played out across the Pacific Northwest. Most of the special places with the big trees that have made Oregon famous have not been protected, they were just the places that the saws hadn't yet reached. I learned of places like: -- The Waldo country in the Willamette National Forest that due to its forest, has a lake with the purist water in the world.

-- The Middle Santiam and the Old Cascades forests that stand next to massive clearcuts on private and public land and are being roaded and destroyed as we speak.

-- The Siskiyou National Forest which has stood as a geologic island throughout the passing of time, and in which has developed a unique ancient forest ecosystem.

I have hunted elk in the Northeastern corner Oregon along the Snake River, the deepest gorge in the world, where the old ponderosa pine are in small pockets along moist areas. I then returned to the Snake to find that the United State Forest Service is even cutting these isolated trees down, destroying prime elk habitat.

I traveled to Washington State and visited the remnant of the ancient forest around Mt. Rainier National Park and heard the same refrain from the locals: The U.S. Forest Service was cutting right up to the National Park boundary destroying priceless groves of ancient forest. When I went to Crater Lake National Park in Oregon the same thing was happening - the forest was cut right to the boundary of the park.

I have spent thousands of hours flying over what remains of the ancient forests of western Oregon from the Coast Range on the Pacific Ocean to the Snake River on the Idaho border. Everywhere I have gone the story is the same. The native forest was almost gone, turned to tree plantations or sometimes worse - nothing but brush where a forest once stood. The more I saw, the more disturbed I became at the madness that was going on beneath my wings.

As I walked along barren slopes in the national forests that were cut almost 20 years ago I realized that the battle was not just for Opal Creek; this is a battle to save what is left of the last of Oregon's ancient forests.

The Coast Range of Oregon has been almost completely cutover. The ancient forest groves of the Cascade Mountains are but fragments and islands amidst the devastation. The Forests of eastern Oregon have been stripped of the old-growth ponderosa pine and the remainder is under attack from a bark beetle infestation that we have unwittingly caused by our forestry techniques.

Before I go on too long about the destruction of Oregon maybe I should talk about Oregonians changing lifestyle and what our future promises. Oregon will always have logging and sawmilling, but as our primary industry, its time has passed.

Like all the loggers that have come before us and moved across the continent we are running out of the giants that have fueled our economy for generations. When the loggers first came to Oregon they saw a ancient forest that spread across the land. Some estimate that as much as 30 million acres of virgin forest once stood in Oregon. Now but a fraction of the original forest is left.

Oregon's early loggers attacked the forest with a vengeance but they hardly made a dent. The loggers could not imagine the forest would ever end. As a boy in Oregon I felt the same way, the forest went on forever. When we finished cutting one valley we just moved on to the next: we said we were "letting a little daylight into the swamp". In the last twenty years that has all changed. We have cut the forest faster and faster counting on new hybrid trees and forestry techniques to make up the difference between what we cut and what is growing. We turned our forests into plantations as one ancient forest after another fell. First the private lands were cut; in many cases it was just cut and

run. Then all the large corporate tracts were liquidated. Today, ancient forest no longer stands on any of the private lands in Oregon, "green gold" it was called. After the private lands were gone industry turned to the federal forests to fill its insatiable appetite.

The U.S. Forest Service went from being the steward of the land to being a supplier of the raw material to keep the industry humming along. The more the Forest Service became an instrument of the timber industry the less it attended to the concept of multiple use. Multiple use soon meant to produce timber at any cost while giving other resources only lip service. Non-game wildlife species dependent on the ancient forest were steadily eliminated. The water quality was degraded, the recreational and aesthetic values were sacrificed, presumably at "acceptable levels". Acceptable to whom? It was not even acceptable to me even when I was a logger. We went along because there was plenty more forest out there. We just moved to a new spot to camp, fish, hike or hunt in the ancient forest.

Well we don't have the luxury anymore in Oregon. There are but a few places left. You may have heard from industry that we have lots of old-growth left. In fact, they say, most of what is left is already preserved in parks, wilderness, or special management areas. Well don't you believe it. We have one postage stamp size National Park in Oregon, Crater Lake, and our Wilderness Areas are primarily rock and ice or high elevation scrub forest. I have camped, and climbed the mountains and flown over all of them. The forest in the Wilderness areas are primarily small high elevation trees that will never reflect the qualities we have come to see in a true ancient forest. Don't get me wrong - these are beautiful areas and deserve special protection. They are just not the areas of big trees or ancient forest ecosystems. These areas became Wilderness because they did not conflict with commodity extraction. The U.S. Forest Service estimates that the wilderness areas in the Willamette and Mt. Hood Forest will be saturated with visitors within 20 years and that we will have a critical need for more Wilderness. But if current Forest Service plans are implemented there will be no more wilderness to add to the system.

So called protected "special management areas" in the Forest Service Plans change every ten years with each new plan. What is classified an old-growth grove today becomes general industrial forest tomorrow. Spotted Owl Habitat Areas are moved around with no reference to where the owls really live; as the Detroit District Ranger told me "I am required to manage for spotted owl habitat, not spotted owls." Management classifications are changed depending on the agencies' need to produce timber. For example, Lookout Mountain on the Ochoco National Forest was left out of the 1984 Oregon Wilderness Act. The Forest Service said, it would protect the big "yellow belly" ponderosa pine stands. Now they propose to log all that could be logged. Areas that are classified as scenic will all be cut maybe just a little slower than normal but all the trees will still come down. The old shell game continues.

We have created a serious problem for the small towns and counties in Oregon. Our rural areas have become addicted to cheap old-growth timber. By continuing to flood the market each year with federal timber we make the problem worse and the ultimate day of reckoning that much harder to take. Oregon has not lived off the interest in our forest bank account: we have squandered the principle and even borrowed against the future. The timber industry would like us to believe that everything ok, just give us a few more years. If we do that the bank account will be empty and our forests bankrupt.

How do we get out of this mess and what of the jobs in the small towns that dot Oregon that are totally dependent on the Ancient Forest for their survival? It is a question that we should have been asking ourselves years ago. What will become of these towns after they cut the last big trees? We are rapidly approaching that point in time, in spite of the timber industry rhetoric. It is important to put the timber industry in perspective. They are businesses with the primary goal of maximizing profits. There is nothing wrong with this, this is what businesses do. But to allow this to happen at public expense by the continued liquidation of the public's forest is not to the public's best interests. From the timber industry perspective it is easy to see why having cheap old-growth timber is so advantageous: It allows the industry maximum profits on the smallest possible investment. Many of Oregon's sawmills are 20 to 30 years old, fully depreciated, and inefficient in getting the maximum benefit out of each log. If the supply of logs is restricted, the price goes up. The mill owner is then forced to make a choice: make the capital investment in a more efficient mill, or shut down and put their money into other ventures. This is what happened during the timber depression in the early 1980's and it is what is continuing today. Sawmills have been opening and closing in Oregon since we first became a state. It is not a bad thing. In fact, each time it happens the industry gets stronger and more profitable. Last year Oregon's timber industry had record profits at the same time it was forecasting doom.

We cannot change the inevitable by postponing the day of reckoning, the day when there is no more old-growth timber to cut. Our choice is simple; do we save the remaining ancient forests for other resources such as water, wildlife, recreation, and sell the remaining trees to tourists many times over or do we cut until the last remnants of these once great forests are gone? No matter what we do we will still face the same problem.

The transition and shaking that the timber industry is going through is not as bad as industry would have you believe. We have been through this many times before. Every time interest rates go up and housing starts go down. Each time we become a stronger state by virtue of becoming more diversified and less dependent on timber. Now we are going through it again, but for better reasons. We are finally having to face the loss of the very things that make the Pacific Northwest so special, its forests. In many cases the long term effect will be positive. Counties and schools will continue to receive 25% of the gross timber sale receipts, but with increased prices as supplies shrink, they will be getting the same amount of money without cutting as much and it will last longer. The Federal Treasury will receive more money as the bid prices go up. The mills will be forced to produce higher quality products more efficiently with less waste of the resource. Higher value product will enable us to compete more effectively on the world market. As we shift to thinning second growth plantations more loggers will be put to work. It takes three to four times the number of loggers to thin a stand of timber as it does to clearcut ancient forest. Small woodlot owners will be able to bring their lands on line as timber becomes cost effective to grow. There will be some disruption in some isolated communities mainly due to the lost mill jobs. These losses would have happened anyway, but these impacts can be mitigated through educating workers and developing a competitive labor pool for higher tech jobs. Oregon will continue to diversify its economy.

Congress can help Oregon by stopping the flow of cheap old-growth logs from the national forests and stopping the export of raw forest products, be they logs, chips, cants, or merches from all Pacific Northwest lands. Congress can help by having the U.S.

Forest Service put up thinning sales and start cutting second growth timber are soon as possible. In my view much of the current timber supply crisis can be laid directly on the shoulders of the U.S. Forest Service mid and upper level management. The U.S. Forest Service has been violating the Endangered Species Act, the Clean Water Act, the National Forest Management Act, the National Environmental Policy Act, and their own Forest Service regulations for years. Many times these violations were the result of the untenable positions in which the people in the Ranger Districts are placed. The Allowable Sale Quantity that the districts are expected to produce are handed down from the top and are just too high. District rangers know that their performance is evaluated by getting the cut out. So the ranger places pressure on timber planners and resource personnel (wildlife biologists, botanists, hydrologists, geologists, and archeologists) people who are usually at the bottom of the Forest Service power structure. The conflict becomes greater as resources other than timber compete within a shrinking forest base. The result of this policy is that the cut always wins, even if legal violations ensue. The planners hope that timber sales will not be appealed, the agency will not be taken to court, and violations will not be discovered. The proof in what has been going on is in the decisions handed down by the courts. Then when the agency is caught with its hand in the cookie jar, we find appropriation riders limiting judicial review rather than reforming the agency's performance. The Forest Service is just now getting a handle on what is really available for harvest. In many cases cuts were based on out-of-date data, or were just plain wrong. Forest Service personnel are in rebellion in many ranger districts in Oregon. In one case that I know of personnel have threatened to appeal their own forest plan if cutting levels in the preferred alternative are not lowered to realistic levels.

Congress must help the Forest Service by insisting on accurate inventories, by setting realistic cut levels and by appropriating the funds necessary to hire competent full time resource personnel. Funds must be made available to put up second growth logs that are now ready for harvest. Resource personnel outside of the timber sale departments must be given more power to stop timber sales that violate existing law. Whistle-blowers within the agency must be protected and encouraged to speak out if past abuses are to stop.

My logger friends and the timber industry look at me and say that we protected plenty of old-growth in Oregon in the Wilderness Areas. I tell them to show me; climb into my plane and show me where all this mythical old-growth timber is. It is not in the wilderness areas. In fact my eyes tell me there is only 5 to 10 years of ancient forest left to cut in all Oregon forests if current trends continue. The Oregon and Washington forests I fly over are so fragmented they look like a dog with a bad case of mange. The biological integrity of much of the forest is gone and yet we are just now learning how the ancient forest ecosystem works. We are destroying the blueprint for how to manage our forests in the future.

You, the Congress, have heard all kinds of conflicting figures as to how much of Oregon's ancient forest is left and you're probably wondering what the truth really is. I would like to extend an invitation to each of you to come see the truth with your own eyes. Come to Oregon or send your staff. I will fly you over Oregon's timber land and you can see with your own eyes what we have done to Oregon and what little of Oregon's ancient forest is left for the future generations.

Thank You.

STATEMENT FOR THE RECORD
OF
STEVEN SELF

DIRECTOR OF PUBLIC TIMBER SUPPLY
TIMBER ASSOCIATION OF CALIFORNIA

I. Introduction

My name is Steven Self and I am appearing today on behalf of the Timber Association of California (TAC). TAC is an association of forest landowners and forest products manufacturers in California -- Region 5 of the Forest Service.

I have a Bachelor of Science degree in Wildlife Management from Humboldt State University, and have worked on wildlife issues for 12 years, including with the Fish and Wildlife Service, the Bureau of Land Management, the Forest Service, and the wood products industry. I have been involved with spotted owl management since 1982 and have several years of field experience and background in long range management planning specific to the spotted owl.

II. Habitat Needs of the Northern Spotted Owl

During the last 15 years, there has been a significant effort to better understand the use of a variety of habitats by the Northern Spotted Owl. Numerous studies and surveys in northern California, Oregon, and Washington have indicated that Northern Spotted Owls occur primarily in old-growth timber.

On the other hand, 10-15% of the spotted owl observations in Oregon have occurred in forests that cannot be described as pristine. Other studies have found spotted owls in mixed

coniferous-deciduous forests where the owls had small home ranges and were observed to be breeding in partially-harvested forests. Furthermore, unpublished field observations in mixed coniferous forests on the east side of the Cascades in Washington found spotted owls nesting successfully in forests managed under a variety of silvicultural systems. Finally, a preliminary survey of spotted owls in redwood forests recently located several pairs of owls in managed forests.

As you know, the Fish and Wildlife Service has drafted a proposal to list the Northern Spotted Owl as "threatened." In the draft document, the Service acknowledged the possibility of silvicultural production in spotted owl habitat, although the Agency pointed out that no field experience verifies this possibility. The draft proposal to list the spotted owl indicated that no information exists on the status of Northern Spotted Owls on private, managed forestlands in northern California.

Thus, these observations, and radio-telemetry studies conducted to date which show that spotted owls prefer multi-layered vegetative conditions, raise the key question: "Can spotted owl habitat conditions be produced in younger, managed forests?" The answer to this question requires: (1) documentation of successfully reproducing pairs of owls in managed forests; and (2) a determination that juveniles of such

pairs are recruited into the adult population.

Therefore, this year private timber companies, the Timber Association of California, and The National Council of the Pulp and Paper Industry For Air and Stream Improvement developed a cooperative program to survey the distribution and reproductive status of Northern Spotted Owls on private lands in northern California. If owl pairs are found to be reproductive, then additional studies might follow to determine population dynamics and to characterize the management regime that produced the favorable habitat conditions.

Following several discussions with landowners and spotted owl biologists, we developed the following objectives for this study:

1. Determine the distribution of Northern Spotted Owls in managed future forests on private timber lands within northern California;
2. Determine the proportion of sites with responding owls that are occupied by pairs; and

3. Determine the reproductive status of pairs that are observed.

The anticipated benefits of the work include: (1) an expansion of knowledge of spotted owls on managed, private forestlands; (2) an improved understanding of the geographic distribution of spotted owls in northern California; and (3) a more complete view of the range of habitat conditions occupied by breeding pairs of spotted owls. The study should lead to a greater understanding of the relationship between occupancy and habitat structure, which would be of value to management policy.

From this study and others in Oregon and Washington, we will gather data on use of non-old growth habitats by Northern Spotted Owls. The study in northern California is surveying habitat types never before surveyed. It had been predicted, based upon current understanding of spotted owl habitat preferences, that spotted owls would not use these habitat types and would in fact avoid these managed stands. The recently-released status review of the Northern Spotted Owl by the Fish and Wildlife Service predicts that spotted owls may have been nearly extirpated from these lands.

Although our study has only just started, it is significant that we have "discovered" a significant number of new spotted owl locations (sites) in our managed future forests. We will begin

this week to monitor these sites for pair status and associated reproductive success. We have already located one nest with two young and several other pairs of owls have been substantiated. We will continue this monitoring effort through the end of August. Preliminary results will be available in mid-September.

In addition to our study, there are two other studies of Northern Spotted Owls in managed, future forests in northern California. These studies have located significant numbers of spotted owl pairs in other-than-pristine habitat types and are monitoring numerous nests with young owls. Information from these studies will also be available in September.

These studies are significant in that we are looking for the first time at spotted owl use of managed, future forest habitats. All previous studies have focused on old-growth and mature forest habitats. We are very encouraged by our preliminary data from the initial surveys of these habitat types. Each day we are gaining valuable new data on the breadth of habitat use by spotted owls.

In spite of these data, there continues to be concern that current management plans and harvest rates will leave no options to manage for "old-growth dependent" species, whether they be spotted owls or other wildlife. Recent definitions speculate that "old-growth characteristics" (those structural features

thought to be found predominantly in old-growth stands of timber) begin to develop after 175 years in stands of Douglas fir. Estimates for other forest types have not been developed.

Because of this concern, we have compiled data provided by the national forests in California during development of their Land and Resource Management Plans that indicate that over 3 million acres of our most productive forest lands will be managed on at least a 250 year rotation and that over half of that total will not be managed for timber harvest at all (see Table I). This acreage represents nearly 45% of the productive forest land in California's national forests.

These acres are contained in large blocks and are included in wilderness areas, spotted owl habitat areas, wild and scenic river corridors, "semi-primitive" areas, visual quality management areas, and other "set-asides" that prohibit or severely limit timber management opportunities.

Another 3 million acres of forested lands on the national forests do not produce industrial quality wood but do provide high quality habitat with "old growth" characteristics for many wildlife species.

To summarize, of the nearly 10 million acres of forested land in the national forests of California, more than 60% will be

managed for the creation or continued existence of "old-growth characteristics." These lands will provide the values associated with old-growth forests, including wildlife habitat.

Successful forest managers must understand the ecological relationships, both temporal and spatial, that exist in a forest. Forests are dynamic, and constantly changing. We cannot preserve a group, or tract, of trees today and expect it to be in the same condition 1,000 or even 100 years from now. Trees, like people, are born, they grow old, they die. They are subject to external forces that affect their health and longevity. Those forces include climatic and weather variations, insects, disease, fire, windstorms, floods, and man's activities.

If you travel to the high, cold, dry country near Florissant, Colorado, not far from the western slopes of Pikes Peak, you will see some huge, old redwood stumps and logs. They are, of course, fossilized -- petrified wood -- but they illustrate the ultimate in natural change on this Earth. Redwoods cannot grow in central Colorado today. In the Western Hemisphere they are unique to California and Oregon. Yet at one time they flourished in Colorado. Changing climates drove them out.

On a somewhat shorter geological timeframe, we find that the Douglas-fir is a relative newcomer to the botanical scene.

Pollen analysis and other dating processes tell us that Douglas-fir did not exist more than 10,000 years ago. It almost qualifies as an emerging species. While some species of both flora and fauna are moving toward extinction, and that disturbs us, others are emerging. Sometimes it may be hard to tell which is which. The process is continuous and will, over the long term, defy preservation efforts.

On a more mundane time frame -- that is, one which we can more easily visualize -- timber types, even if left completely to the whims of nature, move around and change in character. The principle of the climax forest, or "final" forest to occupy a given site, recognizes that some species of trees destroy their own habitat. They create conditions of light, moisture, and nutrient competition that make it impossible for them to reproduce themselves on that site. Then, species more adaptable to those conditions will move in and take over. So it is that, without continually creating openings in the old-growth Douglas-Fir forests of the Pacific Northwest, we will see those forests give way to hemlock, various true fir species, and others whose wood is not as useable or workable as is that of the Douglas-fir.

Douglas-fir and other species with similar biological needs have been referred to as "disaster species," i.e. they cannot be preserved in large stands without some kind of disturbance that "opens up" the stands to allow regeneration and successful early

growth of those species. Nature provides those disturbances in a haphazard way through the forces mentioned earlier -- weather variations (drought), fire, windstorm, flood, disease, and pests. Through management we try to mitigate the adverse impacts of those influences, but we must also provide the necessary modifications.

We have been most successful at mitigating the adverse impacts of fire. During most of this century, although disastrous fires have occurred, we have vigorously attacked forest fires. We have pointed with well-earned pride at a declining "burned acreage" record. But we must realize that in doing so we also altered the natural forces of succession. Over almost all of our forest land (wilderness included), we no longer have the situation that would have existed had we allowed the forces of nature to operate unhindered. Instead, where we once had open stands, we now have thickets of small saplings, often of a different "invading" species. Where we might have had stands of thrifty, vigorous second growth, we now have stagnant (from an energy balance standpoint) stands of old growth. Invading those stands are, in many instances, the later-stage species which will eventually make up the climax forest.

We are learning that the spotted owl prefers to live where certain characteristics exist in a timber stand. Those characteristics provide the bird with cover, thermal protection,

nesting possibilities, food, and the company of other spotted owls. While it has been thought for some time that those characteristics are unique to undisturbed, old growth stands, recent observation and study suggest that timber stand characteristics favorable to maintenance of successful owl populations can be, and often are, found in timber types that do not meet the definition of old growth. Through timber management we can provide for the needs of the spotted owl, perhaps even in better configurations than provided by nature, and at the same time mitigate adverse natural forces and provide the necessary conditions for good timber growth. Preservation "in perpetuity" of tracts of timber on a given site will remove these options for that site and ultimately work a hardship on both the timber and the wildlife resource.

Timber management plans must be structured to provide the needed habitat types and other resource values demanded of our forests. However, we also need to recognize that we can provide these value through management.

Thank you for the opportunity to testify. I would be happy to respond to questions.

STATEMENT FOR THE RECORD
OF
TOM HIRONS

I. Introduction

My name is Tom Hirons. I own and operate Mad Creek Logging Company -- a small logging company in Gates, Oregon. I am here representing Communities For A Great Oregon, The Yellow Ribbon Coalition, and The Oregon Project. These groups through their combined efforts have collected more than 170,000 signatures of Oregonians favoring a stable and adequate timber supply, based on historical levels from public lands.

I appreciate the opportunity to testify today. I hope to provide you with a perspective not often heard from the wood products industry on the debate still before us -- land use allocation on our public lands. I also hope that you will recognize that the debate occurring in my community and in the Northwest is only an example of what is occurring throughout the forestland in America.

II. Humans are an Important, Yet Often Ignored, Component of the Forestland Ecosystem

I rely on the Detroit Ranger District of the Willamette National forest for a supply of raw material with which to operate my business. The North Santiam Canyon is a microcosm of the Detroit Ranger District, or for that matter, any national forest. It is an ecosystem made up of trees, plants, animals, various other organisms, and the people living there. We have been logging, milling and planting trees for one hundred years in

the North Santiam Canyon and it is still one of the most beautiful places on earth.

I am a fourth generation Oregonian. I was born and raised in Salem. I always wanted to work in the woods. My first experience in the woods was when I joined the Cub Scouts at the age of nine. Like most kids in the Willamette Valley of that era, I took part in planting trees in the Tillamook Burn Reforestation Project. That experience, and because my father worked for the Oregon State Department of Forestry, led me to join the Keep Oregon Green Guard Association. Today, I would probably be arrested for littering if I were to hang all of those Keep Oregon Green signs around Salem as I did in the early 1950's.

My first experience in the North Santiam Canyon was in 1951 when my father brought me up to see the Sardine Creek fire where Detroit and Big Cliff Dams are now located. I saw what the full fury of a forest fire could do. I also fell in love with the canyon and knew some day that I would have to live here.

I got my first job working in the woods in 1966. I worked steady for two years before deciding to go to college. I earned an associate degree in Forest Technology and a bachelor degree in History. I went back to work in the woods and have never been confused since then about who I am or what I wanted to do with my

life. I moved to the Canyon in 1972 and started my own logging company that same year. The years since then have had their ups and downs, 1981 and 1982 don't seem to have too many pleasant memories, but all and all its been pretty good. I managed to raise three kids and I have tried to pass on to them the values that my father passed to me.

III. The Land Allocation Debate Continues By Highly Organized and Well Funded Environmental Organizations

While I have been working and trying to be responsible for my family and the families of those who work for me these past seventeen years, I did not realize that there were powerful forces at work against us. Up to this point, we have been naive to the actions of those who seek to undermine our way of life. We are no longer naive. In the past few months, I have come face to face with Earth First and the philosophy of "Deep Ecology." I recognize it for what it is -- a campaign against my way of life. I have listened to the arrogance of spokesmen for Oregon Natural Resources Council and the Sierra Club Legal Defense Fund. I have listened to their total disregard for the people, like myself, who live and work on the land.

National preservationist groups involved in the fight against management of our natural resources have tremendous budgets and a complete staff of legal support ready to pounce

upon any procedural or technical flaw in agency land and resource management plans or environmental documents. For example, three recent court decisions involving the spotted owl in Oregon and Washington have clearly circumvented the forest planning process. These cases alone have caused tremendous economic impact to the wood products industry. Preservationists continue to use various environmental laws to stop forest management on our public lands. The root issue remains as it has for the last 20 years -- which lands shall be managed for multiple use and which lands shall be set aside for single use?

IV. The Detroit Ranger District on the Willamette National Forest is a Good Illustration of the Land Allocation Debate

The Detroit Ranger District, where I live and work, is a good illustration of the land allocation debate. There are 298,000 acres of forestland on the Detroit Ranger, of which 86,000 acres are in wilderness of roadless designation. An additional 45,000 acres are in Old Growth Wildlife set asides. Another 27,000 acres are determined to be unsuitable for timber harvest because of unstable soils, irreversible impact to the resource or being unstable to insure regeneration within required time frames. That leaves 92,000 acres of general forest for multiple use including timber harvest. The remaining 48,000 acres allow limited timber harvest due to longer rotation cycles, dispersed recreation, or visual impact. Thus, 53% of the

District is set aside, 31% is available for timber management, and 16% is available for restricted timber harvest. However, recent spotted owl decisions have reduced the landbase from 47% to only 14% on which some form of timber harvest is allowed.

Prior to the 1984 Wilderness additions, the Detroit Ranger District was selling approximately 119 MMBF per year. After adjustments for wilderness additions, the available annual sale quantity was reduced to approximately 105 MMBF. The revised draft Willamette National Forest management plan preferred alternative calls for a reduction in the annual cut to 92.5 MMBF. At that annual rate of harvest, we could continue to cut old growth on the landbase currently available for multiple use management for 82 years before harvesting the last old growth trees.

The landbase available for timber management on the Detroit Ranger District is of critical importance to the communities of the North Santiam Canyon. There are three major purchasers of National Forest Timber on the District; one is 98% dependent and the other two are 75% dependent on this timber. Combined with their contractors and sub-contractors (of which I am one) they provide a living wage for 1800 families. Those families in turn provide the economic base for an additional 3600 families living in the communities of the canyon. The direct forest products payroll generated by the 140,000 remaining acres available for

timber management of the Detroit Ranger District approaches \$40 million annually. This \$40 million, when combined with the operating expenses of these businesses, ripples down through the canyon and into the metropolitan areas of our state and nation, providing an important part of our economic base.

It is from these acres, and others like them, that we provide the over 5000 wood products that our society has come to demand. The hope and dream of every American is to be able to own one's own home. As the nation's most productive forest, the Willamette National Forest and the Detroit Ranger District play a vital role in fulfilling that dream. The wise use of these 140,000 acres will insure that we can continue this role into the 21st century.

If the preservationists have their way and we do not manage the 140,000 acres on the Detroit Ranger District for multiple use, most of the 4800 people living in the area (my friends and neighbors) will lose the dignity that an honest job provides. We will lose our homes, our divorce rate will increase, our incidence of alcohol and drug abuse will go up, and our ability to pay taxes and be good productive citizens will be gone.

I have read in the Salem paper that we need to quit crying, retrain and get on with our lives. I am 49 years old and have six years left on my home mortgage. It is highly unlikely that

new industry will locate in the North Santiam and retrain me or others in my community.

A strong economy based on sound forest management makes good common sense. The preservationists absolutely refuse to address alternatives to the impacts created by locking up our public lands to preservation.

If we leave nature to manage these remaining 140,000 acres of the Detroit Ranger District, the result will be devastating. Nature manages by catastrophe. Her tools are fire, insect, disease, wind, and even volcanic eruption. Nature does not provide the protection to stream courses, wildlife areas, and steep shallow soils that we do as we manage the forestlands of the Detroit Ranger District.

Preservationists have duped a large number of Americans into believing that there are only two choices; either total preservation or total destruction. This is not true! These absolute choices deny man's basic need to be creative and to utilize technology. It is time to put man back into the environmental equation. We are a vital and essential part of the earth's ecology. Working together we can plan a reasonable and certain future for the people and the forest of the Detroit Ranger District, and throughout the forestlands of this great country.

V. Finality Must Be Reached on the Forestland Allocation Issue

We must reach finality in the forestland allocation debate. My father debated these issues and I am here before you today doing the same. I am hopeful we can strike a balance between the uses of our forestlands, and spare us and our children of any further debate on this issue.

The other industry panelists and I have explained the roles of spotted owls and old growth preservation as surrogates for the larger question of public forestland allocation. We clearly see these issues as two further chapters in a lengthy book of plans, legislation and court rulings which continue to reduce lands available for multiple use in the Pacific Northwest. Elsewhere in our nation, other surrogates are being used in the forestland allocation debate -- the red-cockaded woodpecker in the South, the grizzly bear in the Inland Empire and the timber wolf in the Lake States.

VI. Forest Resource and Land Management Plans Must Also Have Finality

Our nation's public forestlands must contribute a fair share of timber to meet consumer demand. The share of timber available from Forest Service land is being determined through the forestland and resource management plans. Decisions rendered through the planning process must have a chance to be implemented

and activities monitored, rather than be continually debated. There must be finality to forest planning decisions.

It is apparent that the preservationist community mistrusts the forest planning process. This process is failing to generate the results they seek. Thus, they resort to wholesale administrative appeals, the threat of litigation and court action to reach their goals. Nationwide, the preservationists have never endorsed implementation of a final national forest plan.

Even Congress has not endorsed the implementation of final forest plans. Each year Congress, through the appropriations process, funds forest plan implementation. To date, no final forest plans have been funded at a level to allow full implementation.

I also have concerns over the land management planning process. The Forest Service is currently neither managing nor proposing to manage the Willamette National Forest close to its timber growing biologic capacity. Further, I see no end to the preservationists' attempts to reduce the number of acres available for multiple use management on the Willamette National Forest.

Without an assured allocation of forestlands, business planning -- short or long range -- is impossible. Today, timber

volume under contract is at an all time low. Without volume under contract, we have no collateral for lenders when we need to make investments in new plants and equipment. The Northwest forest products industry, presently successfully competing in world markets, will wither and become a drag on the American economy if this situation does not stabilize.

VII. These two Congressional Committees have a choice of bringing closure to the forestland allocation issue.

In closing, we have before us an opportunity to insure that America's forest products industry remains competitive and strong. We have modern mills and equipment. Most importantly, 68,000 Oregon forest products industry workers stand ready to meet the challenge of providing America's and the world's forest products needs. All we need is a reliable raw material supply.

You have the choice of assuring a landbase which will meet our nation's demand for wood products, as well as contribute to the world's supply of wood fiber. Let's end this land allocation debate once and for all and strike a balance of land use we can all live with for the future.

Given a reliable forestland base, the wood products industry will be part of the solution to our nation's current crisis of debt and massive trade imbalance. We can be a net exporter rather than a net importer of wood products. And, if given a chance, we will do so in a more environmentally sensitive manner than any other country on earth.

Thank you.

3 July 1989
 Fort Angeles

Dear Committee Member;

I am a lifelong resident of Lubichington Olympic Peninsula and have derived my income exclusively from the forest for my entire working life.

I have seen many changes in logging and forest practices within my life and have advocated to those in managing positions my advice or complaints.

I fully support continued use of our forest for multiple uses. I am not opposed to National Parks, Wilderness Monuments and other special use areas.

Our state contains our fair share if not more of these special areas.

I have actually helped harvest much lowland old growth on the Olympic Peninsula's westside and higher elevation national forest land.

The benefits of harvesting the old growth and second growth forests are many. It would be a crime in my opinion to permit the timber to waste away due to decay and storm damage.

Civilization has and always will require wood products; however, raw log exportation need to be severely ^{restricted} from state, federal and private lands. Processing of raw logs should be in America until surpluses exist.

The spotted owl issue has evolved into an issue of old growth preservation and logging in general.

Our climate and soil here is ideal for growing timber.

As for the spotted owl, many as I do feel the owl has enough protective areas now. The spotted owl has never been plentiful as I have spent years picking, trapping, hunting and logging old growth timber and rarely seen the spotted owl. Many lifetime woodsmen have never seen one.

I am presently employed as a timber cruiser and I see all types of owls while inspecting timber but no spotted owls proving to me spotted owls were never plentiful historically in our region. This is true of several other wildlife species in the Northwest such as the timber wolf and fisher which while present, are rare.

I urge Congress to preserve our industrial forest lands for that purpose and not set ~~aside~~ special reserves for the spotted owl which is rarely seen.

Should one uncommon wildlife species have priority over jobs and prosperity?

Thank You

B. L. Adamire

1122 Spruce

Port Angeles, Wash 98342

phone 206-457-5885

6-30
1989

~~Dear [Name]~~

I'm very much concerned about the timber source in the Northwest. My two brothers and one sister and her husband are shareholders in a plywood mill in Stevenson Wa.

Without new timber sales their supplies will run out in November. And other mills are down.

The timber companies went to the table last week with a compromise, the environmentalists threw it out, why are they getting by with it? People should come first.

Trees are one resource that's renewable I would hate to see the timber industry destroyed by environmentalists.

Thank You.

Danva Andersen

June 30-1989
 Port Angeles, WA

~~Dear Bob:~~

I'm very much concerned about the timber resource in the Northwest.

I have two brothers & a sister who are share holders in a plywood mill in Stevenson Washington. Without new timber sales, the supply will run out some time around November. Then the mill will be shut down.

The Timber Companies went to the table last week with a compromise, the environmentalists threw it

out. Why are they getting by with it - People should come first.

Trees are one resource that are renewable. I would hate to see the timber industry destroyed by environmentalists.

Thank you

Jina Bailey
 #39 Hwy 101 West
 Port Angeles, Wash
 98362

FORKS GLASS COMPANY

GLASS SERVICE & SALES

June 27, 1989

P.O. BOX 1580
FORKS, WA 98331
TELEPHONE (806) 874-9296

Dear Committee Members,

We are very concerned about recent decisions involving extreme-ist environmental groups & our states timber market.

Our entire way of life is dependant on the continuance of timber sales on the Olympic Peninsula.

We have chosen this part of the country as an environmentally safe place to live & raise our children & now we are being forced out of business by a few people who don't understand harvest of a valuable crop which is renewable -

Sincerely,
Sherry Baysinger

559

June 27, 1989

From : West Business and Professional Association
P. O. Box 1162
Forks, Washington 98331

To: Subcommittee on Forests, Family Farms, and Energy
% Allison Biggs
House Committee on Agriculture
1301 Longworth House Office Building
Washington D.C. 20515

Dear Committee Member,

We feel that it is of extreme importance to the livelihood of our community and the members of our organization that the old growth cutting cycle be keep stable.

We feel that wild life can co-exist with the timber industry since vast areas of old growth have been set aside in the Olympic National Park and scenic river areas.

Additional timber closures would result in massive lost of jobs in the timber industry and those businesses whose customers are dependent on those jobs.

The school systems of Washington State are dependent on revenues from the sale of timber for school construction which is already behind in matching needs by several years.

Please word on finding a compromise legislation that will protect wildlife but without the loss of job and the resulting economy crises.

Thank you for listening.

Sincerely,

Bill Berglund
Bill Berglund President

July 6.

Dear Sam

I have lived in
and around the lake area
all my life. My husband hunted
fished and worked in woods
and mills, he retired from working
there and went to work for the
highway dept. he was killed when
a bridge went out in a
storm and I know that he would
support the timber and logging
bill which is our main industry
here. It is against any more
poles here we have enough.

I don't think in the spotted
bill issue any more.
He with just people. I hope you
want it all. Who will
support the family - a covered bridge
here. I've over
joke

Dorothy
Gosler

July 5, 1989

SUBCOMMITTEE ON FOREST, FAMILY FARMS,
AND ENERGY C/O ALLISON BIGGS
House Committee on Agriculture
1301 Longworth House Office Building
Washington, D.C. 20515

Dear Committee Member:

I would like to explain to you why I think the old growth should remain in the cutting cycle:

First of all, I am a third generation, Forks Washington resident. My grandfather was a homesteader of Forks as a Forest Service Ranger after his discharge from the Spanish American War. Later he was a National Park Service Ranger after the conception of the Olympic National Park.

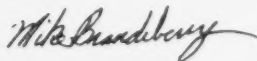
What my family and myself have seen over three (3) generations as land managers is invaluable compared to studies biologists and other so called experts that use computer models to predict what is suppose to happen to our ecosystem.

Here on the Olympic Peninsula we have over 1,000,000 acres of National Park Lands. 365,000 is wilderness areas, all of these acres are preserved forever which have never been logged and 325,000 acres is commercial forest lands. We need what is left of these commercial forest lands to maintain a viable community base and to raise timber for future generations. I don't think this is asking too much when you see what is set asides already.

I get mad as hell when I read on the front page of the Seattle PI that the Secretary of State, James Baker is going to seek one (1) billion dollars over 5 years for the government of the Philippines to help buttress there fragile Democracy. (Article dated 07/05/89)

How about the 50,000 jobs that will be lost in Washington and Oregon over a bird called the spotted owl? How the hell can our government take these people (the taxpayers) livelihoods away from because of an unproven hoax like the spotted owl issue?

Now tell me who has the fragile Democracy??!!



MIKE BRANDEBERRY
P.O. Box 631
Forks, Washington 98331
206-374-2506

Dear Committee Member,

I am writing to express my concern over restricting cutting of old growth on the Olympic Peninsula. A couple points I'd like to make are:

The history of the Forest Service with strong congressional direction (Ranger Land Renew Resources Act & "Forest Management Act") has been "sustained yield" with emphasis on community stability. Considering our growing national debt and communities that have been lead into depending on Forest Service timber, now is a poor time to change course. The sustained yield will be totally disrupted by not cutting remaining old growth.

We've already set aside enough old growth in parks and wilderness areas. Here on the Olympic there are over 500,000 acres of lower elevation old growth. The Olympic National Forest has around 600,000 acres.

Thank you for this opportunity to comment.

Sincerely
 Glenn M. Buckman
 P.O. Box 2418
 Forks, WA 98331

BAND TRUCKING

235 Forest Avenue
 Port Angeles, Washington 98362
 Dick & Bev Davidson - Owners



"Log Hauling —
 Our Pride and Profession"



Office (206) 457-6850
 Shop (206) 457-0705

SUBCOMMITTEE ON FORESTS, FAMILY, FARMS
 AND ENERGY c/o Allison Biggs
 House Committee on Agriculture
 1301 Longworth House Office Building
 Washington DC 20515

July 4, 1989

Dear Committee Member;

I am pleased to know that I have at least one more chance to state my feelings on the timber issue. The most important point to me is a stable land base and common sense cutting and planting cycle to assure the survival of our log trucking business. We have 13 logging trucks and 19 employees that depend on their jobs for survival. Including their spouses and children, this will directly effect 56 people. We have been in business for 17 years and have seen good times as well as bad. This by far is the most difficult thing that we have faced. Shutting down our livelihood due to "lock up fever" is both frightening and depressing.

I feel that small communities such as ours deserve better treatment from the government and that when you consider "locking up" old growth vs. saving our communities, jobs and families, we should get equal time. We work with our hands and we are very proud of our heritage in the Timber Industry.

Please help assure us a stable land base for for growing trees for our future. No trees means economic disaster for those 56 people our company supports. Trees are a renewable resource. Thank you for your time.

Sincerely;

Bev Davidson

Bev Davidson - Owner, Band Trucking

(1.) July 7, 1989

Dear Committee members,

The impact of logging clear
more old growth forest will
be devastating at least for the
lumber products industry. We
have lost nearly 100 jobs
on Olympic peninsula alone!

I can not believe that any
thinking person could believe
all the rhetoric that these
preservationists are saying.

No one has proved yet,
that the spotted owl is in
danger of extinction. Spotted
owls have been recorded
in 2nd + 3rd growth timber!
We already have an area
the size of Massachusetts in

(27)

then state have set a seal!

The preservationists have misled the people (General Public) and a lot of our politicians in the believing that cutting off old growth leads to the green house effect, which is ridiculous. New growth trees put out more oxygen than old growth. Old growth generates carbon monoxide more readily than 2nd growth.

This land was set aside for timber and water shed.

There is enough timber already set down. These Extremists are not only after timber, but mining, oil, gas, iron lands and coal lands.

(3)

It makes me wonder
if there is not an overall
plan to destroy the econ-
omy of this great Nation!

I urge you, to get
all the facts on this
issue before deciding the
the fate of the timber ind-
ustry.

Respectfully

Ron Eastman

RON EASTMAN TRUCKING
4270 Bishop Rd.
Port Angeles, WA 98362

June 30, 1989
 Port Angeles wa.

~~I. all~~

My wife and I are very concerned about the timber source in the Northwest we depend on it for our livelihood.

Right now I'm working in oldgrowth timber two thirds of it so far is pulpwood, what I'm saying is on the decline and needs to be logged and replanted.

The timber companies went to the table last week with a compromise, the environmentalists threw it out. They don't care how many jobs are lost, What is to become of the timber people?

Thanks for your time

Doug Fechter
 441 Hwy 101 w.
 Port Angeles wa. 98362

Subcommittee of Forest, Family Farms and Energy
C/O Allison Briggs
Committee on Agriculture
1301 Longworth House Bldg.
Washington D.C. 20500

Dear Committee Members,

We Need your HELP and UNDERSTANDING Desperately ! Our Home, Our Childrens' Future, and Our Way of Life are being threatened and it appears that no one is listening ! I'm speaking of the apparent disregard for HUMAN BEINGS in the Spotted Owl/Old Growth battle that is now raging in the Northwest. We're amazed and Terrified that powerful and vocal "Preservationist" organizations have been so successful in twisting the intent of the Endangered Species Act to their own special purpose - namely, the Cessation of Old Growth timber Harvest in this Region. They do this with Religious Zeal, and with no apparent compassion for the THOUSANDS of Families that will be devastated as a result.

THEY ARE SEEKING TO COMMIT CULTURAL GENOCIDE AGAINST ALL RESOURCE PRODUCING RURAL COMMUNITIES IN THE REGION!!

How have they been so successful? The answer lies in the fact that for years they have led the Public and You Leaders to believe that our Natural Resource Decisions involved only TWO CHOICES; 1. Preserve what we have , or 2. Rape the Land! THIS IS A FALSE HYPOTHESIS! There are Many, Many, Many options to Natural Resource Management that are being masked by the clever Public Relations Plays being widely circulated in the Urban media. I plead that you not be taken in by this Either/Or Mentality.

We've been told that Congress will probably act on some sort of Spotted Owl/Old Growth Timber solution sometime this month. We BEG YOU, Committee Members, to support the Rights of a small sub-population of endangered Human Beings - Rural Americans. Please take into account the fact that the social costs of Destroying small Defenseless communities must be given GREAT Weight in the Endangered Species decision-making process.

We are Human Beings who are proud of our Nation, our Lifestyle, and our Contribution to the economic needs of our country. We are Out-Gunned, Out-Financed and OUT OF TIME!

PLEASE, PLEASE HELP US! We need someone we can count on. Someone who will be able to look my children in the eye and say "You really do count".

Sincerely,

George Flanigan
Rhonda Flanigan

George & Rhonda Flanigan
P.O. Box 412
Forks, Wash. 98331



WESTERN WASHINGTON COMMERCIAL FOREST ACTION COMMITTEE

Post Office Box 1159 • Forks, Washington 98331 • (206) 374-6699

July 16, 1989

Dear Committee Member:

I am writing to strongly encourage Congress to look at Washington State's Old Growth Commission's Recommendations regarding management suggestions for old growth forests on state lands. These recommendations could easily be applied to federal lands. The 35 membered blue ribbon panel, representing all sides of special interests in public land disputes, has offered an accepted and highly acclaimed solution for managing our old growth forests so that habitat needs are met, commodity and consumer needs are met, the small logging operations who depend on public lands can keep working, and timber dependent communities can stay viable.

The Old Growth Commission, which was brought together by Washington State Land Commissioner, Brian Boyle has offered the country a model which can effectively end the bitter debates over management of our national forests in Region Six. Using well-regarded scientific research, recognition of environmental concerns and needs, and taking into account social and economic considerations, the commission has recommended that changes in silvicultural and management practices can allow for forests to keep old growth characteristics and still provide for a level of timber harvest.

It is my sincere belief that this model can be used to help in the management of our national forests so that the true meaning of multiple-use can again be realized in our region. I encourage you to send for a copy of the final report of the Commission on Old Growth Alternatives for Washington's Forest Trust Lands. Brian Boyle, Commissioner of Public Lands, Public Lands Building, Olympia, WA 98504.

Sincerely,

Ann Goos, Executive Director
Washington Commercial Forest
Action Committee and
North Olympic Timber
Action Committee

ncf



PORT OF PORT ANGELES

338 West First
TELEX 469230

Post Office Box 1350
Port Angeles, WA 98362-0251

Area Code 206 457-8527
FAX 206-452-3959

D. G. HENDRICKS
Executive Director

COMMISSIONERS

President
ANDREW NISBET, Sequim

Vice President
TED SPOELSTRA, Forks

Secretary
ROBERT M. MCCORRIE, Port Angeles

June 30, 1989

Sub-Committee on Forests, Family Farms and Energy
c/o Allison Biggs
House Committee on Agriculture
1301 Longworth House Office Building
Washington, D.C. 20515

Dear Committee Member:

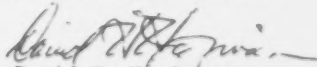
The Port of Port Angeles is a county wide Port District that encompasses Clallam County on the north end of the Olympic Peninsula in Washington State. As a Port District, we are actively involved in economic development and diversification within the county. We have been somewhat successful in attracting new diverse industries to our area, however the timber industry has been and will continue to be the backbone of the areas economy.

A long term stable supply of timber for our local industries is essential in order to insure continuation of employment as well as encourage further capital improvements for the future. A prime case in point are the plans of a local paper mill's expansion that have been put on hold due to a number of uncertainties. One of the major areas of concern is the availability of a reliable supply of timber in the future. This potential expansion represents over \$600 million in private investment that would enhance the local economy, provide jobs and surely be an asset to our community. At the same time numerous saw mills are facing closure due to a lack of supply. These mills are faced with survival, let alone making capital investments for an uncertain future.

We encourage you to consider the families and communities that would be directly effected by your actions. We appreciate the opportunity to express our views and look forward to your favorable response.

Sincerely,

PORT OF PORT ANGELES


David H. Hagiwara
Director of Marketing

DHH:sb

•AIRPORTS

•MARINE TERMINALS

•INDUSTRIAL SITES

•BOAT HAVENS

June 30, 1989
Box 66
Forks wa 98331

Committee of Forestry
Family Farms & Energy
Allison Begg
301 Longworth
House Bldg
Wash. D.C. 20500

please look at Land management
in the State of Washington and the
olympic peninsula -

when you look at the map of the
peninsula you will see that
the olympic national park takes
up most of the area -

So in a gainst setting aside
any more old growth - as
in times it falls down and lays
there -

new growth gives all more
to clear the air than the old.
Thanks. Sincerely,
Dale Halverson =
a volunteer 4th Grader for 46 years.

June 30, 1988

Subcommittee on Forests, Family Farms, and Energy C/O
Allison Brees
House Committee on Agriculture
1301 Longworth House Office Building
Washington D.C., 20515

Dear Committee Member

My husband and I are lifetime residents of the Olympic Peninsula, and are one of the hundreds of families relying on the timber industry for our livelihood. Since I work for the local school district, the revenue from logging to schools also affects my job and our child's education. We have written several letters and we will write more until we conclude that someone out there is listening and UNDERSTANDING our message.

The opinion seems to be rampant that all loggers are on one side of the fence and environmentalists on the other side - that we are "enemies" so to speak. This is far from the way it should be. We both want to provide society with the products derived from wood products, and we both want to conserve the beautiful area for our children and grandchildren. There has got to be a better way to resolve this problem than by scare tactics and "Earth First" destruction.

We, as a timber industry, need a stable land base and we also need SOME old-growth timber in the cutting cycle. In order to do this, we need to come to an agreement of terms on exactly what old-growth timber is and how much of it there is, and where it can be harvested. We are sure that this can be resolved so that it is fair to all involved.

The community of Forest, Washington, and hundreds more like it in the Northwest, will be heavily impacted by a total "stop" on logging, as the environmentalists truly want. There would be hundreds and hundreds of people out of work.

and school districts going into a panic as their budgets disappear.

The Northern Spotted Owl and all other types of wildlife the environmentalists have on their threatened or endangered lists are irrelevant, and we all know it. They are a means to stop all logging in the area, and this should not be allowed.

Please think of our futures before making any decisions that will adversely affect hundreds of good, honest people in communities all over the Northwest.

Sincerely,

Richard E. Halverson
Andrea Halverson
Mr. and Mrs. Richard Halverson
Rt. 1 Box 5751
Poulsbo, WA 98331

THIS IS MADE FROM TREES
A RENEWABLE RESOURCE

HURN

Shingle Company, Inc.

Manufacturers of **RED CEDAR SHINGLES** and **SHAKES**

4247 Grassmere Road P.O. Box 799 Concrete, WA 98237 ☆ Telephone (206) 853-8151, 853-8798

July 1, 1989

Subcommittee on Forests, Family Farms, and Energy
Allison Biggs
House Committee on Agriculture
1301 Longworth House Office Building
Washington DC 20515

Dear Committee Member;

Our family has been in the shake & shingle manufacturing business for four generations, 40+ years, and we would hate to see all of this hard work go "down the drain". This is what will happen if the old growth timber is protected. Washington state already has enough timber protected from harvest.

It is VERY important to us that the old growth forest is not permanently protected from harvest. Shakes and shingles can NOT be manufactured from second growth. There has been rumors of halting export from state land to help the domestic mills, that would NOT affect our mill because most of the state land in Northwest Washington is second growth.

We employ 30+ people in the small town of Concrete, in the Skagit Valley, and everybody in the community benefits from our company. If the old growth is protected permanently from harvest and we are forced to close the mills, it will have a devastating effect on this community.

Shutting down an important industry isn't justified, people are at least as important as owls.

Sincerely,

Larry Hurn

Larry Hurn
President
HURN SHINGLE COMPANY INC

slh



June 30, 1989

Subcommittee on Forests, Family Farms, and Energy
c/o Allison Biggs
House Committee on Agriculture
1301 Longworth House Office Building
Washington D.C. 20515

Dear Committee Member:

It is inconceivable to me that the Congress has allowed this problem in the Pacific Northwest to grow so out of control. The stability of the economics in our region is contingent on immediate action. This should not be a partisan issue. It is not a partisan issue when it affects the lives of thousands of families.

I am 46 and my husband is 55. We sold our home in Montana to start a new career in Forks, WA. We have all our assets tied up in debt in a community we now call home. If our business, a privately owned Sears Catalog Store, goes under, then we and many other lose. The bank that owns our home loses. The bank that has 2 loans with us loses. The gentleman who holds the contract on the store loses. The gentleman from whom we rent loses. Our employees lose. The state loses (Sears paid over \$57,000 to the state last year from our store). The community loses another service. The list goes on and on.

My husband and I have practically no savings at present. Our future is the store. It's our livelihood and our retirement. We have many skills honed through years of experience but employers are not looking for people in our age bracket. They don't want (or can't) pay a living wage. In other words, if the environmentalists are allowed their one-sided views, my husband and I could very probably join the growing ranks of the homeless.

We need to maintain a stable land base first. Then we need to discuss the questions of export, owl preservation, etc.

We, and thousands like us, are helpless and frightened and feel we are pawns in a power struggle. Please do something now to protect the economic stability of the great Pacific Northwest.

Thank you,

Cheryl A. Kaley
Cheryl A. Kaley

POB 1100

Forks, WA 98331

July 5, 1989

Subcommittee on Forests, Family Farms, and Energy
C/O Allison Biggs
House committee on Agriculture
1301 Longworth House Office Building
Washington D.C. 20515

Dear Committee Member:

I recently read about the informational and fact finding hearing you held in Washington State on June 14th & 15th. I'm always pleased to know that our legislators are taking time to talk to their constituents and getting the real information about what is happening in the Northwest timber crisis.

I was not at the hearing, but I would like to add some comments for your information. The timber industry has always been and is even now an important part of the Northwest economy. If efforts aren't made to provide a stable and continued supply of raw material for the industry the effects will not only be felt in the northwest, but also the national economy will be effected. The forest service has done its best to provide the nation with well managed, sustained yield, timber supplies. They have had to adjust their figures countless times when productive timber areas have been taken from their long range plans and put into wilderness, roadless or scenic areas. Now the timber industry, the forest service and the BLM are under attack by the preservationist groups for over using the lands.

The preservationist groups in Oregon participated in a summit on June 24th in which the delegation offered a compromise. The industry accepted the delegations efforts even tho they were not exactly what they would like to have had. The preservationists have shown their true colors again with turning down the delegations compromise. One preservationist group, The Sierra Club, accepted the compromise, but the more radical groups would not allow the continued harvesting of timber. This accentuates the fact that these groups do not care about the economy or the people, or in fact working together for a solution. Whenever the forest service, the BLM, or the timber industry gives to these preservationists, it is never enough. They always come back shortly after they have won ground and ask for more.

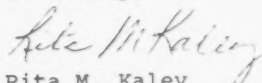
It is of utmost importance that the nation has a set aside land base for obtaining wood products for America. This set aside has got to be untouchable by preservationists, and any other groups that might arise in the future to eliminate parts of the base. How can the Forest Service, the BLM, or the timber industry plan for long range production when land is continually taken from the base that they plan on. It does not work in any business to take away the base of operation, it will not work in the forests either.

The communities that depend on timber for a living will soon start to deteriorate if something is not done to ease the crisis now. Families out of work for extended amounts of time breed hostility. Hostility not only comes in the form of abuse to wives, but also to children, and it spreads like a disease to the attitudes of neighbors, extended families, shop owners and everyone in the affected area. There are many such communities in Oregon (80) that could be the faceless problems that the world will not want to admit to when it happens. The state of Washington will have many of those communities also. Who will be responsible for these people?

Please take every precaution to consider the long range effects of what your decisions of today will mean to the people in American tomorrow and the years afterward. You have a great responsibility to make decisions that will be for the good of the people, and the American economy.

Thank you for taking the time to consider my comments as well as the others presented.

Sincerely,



Rita M. Kaley
880 Country Club Road
Hood River, OR 97031

~~James William Biggs~~

I am currently a highschool student at forks High School

The conservationists or whoever are trying to shut down the woods here it isn't fair. They don't live here all they have are people that come here once a year to see forks or not at all. They don't see the good only the bad.

My father owns a business he doesn't work in the woods. What are we gonna do. We can't move on and start over. If we did we'd be poor real poor. Are the people who shut down forks gonna help pay for the people in the area will pay. The people who hurt us will have not survived, be almost poverty stricken, or faintly broken up looking for other work. Will suffer and maybe they'll think oh I've done good helped something. No they will just have destroyed and others will suffer. Children won't go to college or anywhere.

Our dropout rate is
bad enough. How many
children will have to
grow up fast and help.
I'm scared and concerned
and angry.
I feel I may later might
do something or nothing.

Sincerely yours

Joann H. Kilmer
P.O. Box 120
Forks, WA 98331

Dear Committee Member

I'm writing about the park trying
to preserve all of the Glenside Park
If you don't know about the park
that is their big plan. The thing is
that wood is the main thing
of income. Fishing is not always good.
The idea of making the thing -
a line that is not to be cut down
is stupid. It looks like it is
Douglas Fir is used to make
furniture, lumber, paper, plywood,
and boxes. The thing is
is my home - but want to
because of people coming at the
small picture instead of the big.

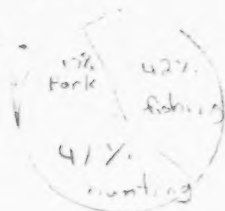
The idea of tourism as the
main source of income was
desired as follows. From months
end of the year is the tourists
season - a group of people

1. in about 12.

41% hunting

41% fishing

17% part



J. J. J.

Kristin Kilmore

2007

Tourist Attraction
Percent-%



STAR AND BOB KILMER
P.O. BOX 120
FORKS, WA 98331

July 6, 1987

~~Dear Allison Biggs~~

Help! I have lived and worked in Forks for 9 years. Now the community is under attack.

Forks is known as the Logging capital of the world. Trees are the resource that grows naturally. We have about 120 inches of rain which douglas fir, alder, hemlock, spruce. love and grow great.

My husband's father logged trees and now that same area is being logged again. We plant & harvest for the future ours & our children.

Please support the harvest of tree here and for the future.

Mother of
three child.
9, 12, 15 -

Sincerely Star Kilmer

6 July 1787

Dear Committee Member,

Please help fight putting the
Spotted Oil on the endangered list.

The economy in Fair's is low now
and stopping harvest of the forest
will kill it entirely.

Carrie & Huey

DEAR COMMITTEE MEMBER, ^{July 3, 1989}

I wish to state my position on the spotted owl controversy.

Being the owner of a certified Wash. State tree farm I have had the occasion of watching timber grow and die. At the present time I have large second growth trees 60-80 yrs old and every year several of these die, mainly from root rot. I manage to salvage this wood for fire wood, but it makes me sad to see this nice wood cut into firewood.

I believe that any resource that is subject to destruction through disease, fire, wind etc. should be utilized while it can be. We have many thousands of acres of timber, that will never see a chain saw, in our parks.

As for the spotted owl, I think

any person with a reasonable
mind will admit that most
animal and bird life will
either move into its normal
habitat or readily adapt
to new.

Thank you for your time,
Ralph Koester
1210 Dan Kelly Rd.
Port Angeles
Wash.
98362

STATEMENT FOR THE RECORD

OF M. J. KUEHNE

NORTHWEST INDEPENDENT FOREST MANUFACTURERS
P. O. Box 11346
Tacoma, WA 98411

BEFORE THE JOINT HEARING ON OLD GROWTH FORESTS
HELD BY THE SUBCOMMITTEE ON FORESTS, FAMILY FARMS & ENERGY
OF THE HOUSE AGRICULTURE COMMITTEE AND
SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS OF THE
HOUSE INTERIOR AND INSULAR AFFAIRS COMMITTEE

Washington, D.C.

June 20, 1989

CHAIRMAN VOLKMER, CHAIRMAN VENTO AND MEMBERS OF THE FOREST SUB-
COMMITTEE AND PUBLIC LANDS SUBCOMMITTEE:

I am M. J. "Gus" Kuehne, President of Northwest Independent Forest Manufacturers. NIFM is an association of over 50 companies which operate approximately 60 mills located primarily in Western Washington. These companies are primarily dependent upon timber from National Forest lands which they manufacture into lumber, plywood, veneer, shakes & shingles, and other forest products which are marketed in every state of this nation and throughout the world.

We are obviously concerned about the subject of this hearing because old growth timber harvested from federal lands is the primary source of logs used to run our manufacturing facilities. Other members of the forest industry have testified before you regarding the economic and social costs associated with reducing harvest levels in old growth forests of the Pacific Northwest. I

fully support their testimony but at this time I would like to concentrate my remarks on the myth that "old growth forests are rapidly disappearing".

First let me say that the issue of old growth forests - ancient forests, is frequently confused with the perceived habitat needs of various wildlife species - spotted owl, marbled murrelet, goss hawk, pine martin, pileated woodpecker and a variety of other critters. These species all have differing habitat needs which are frequently confused with a variety of definitions of old growth or ancient forests. Preservationist organizations frequently discuss the preservation of old growth habitat as the preservation of habitat for the spotted owl or one of these other species identified with mature and over mature stands of trees. When it suits their purpose, they have used the spotted owl as a surrogate to halt harvesting of timber in stands as young as 100 years old. Preservationists now openly admit the issue isn't saving the owl, the issue is setting aside more land from timber harvesting. Andy Stahl with the Sierra Club Legal Defense Fund, last year in a speech to a law seminar at the University of Oregon explained, "the spotted owl is only a surrogate . . . if the spotted owl didn't exist, we would have to genetically engineer it." Preservationists also use much restrictive definitions when it suits their purpose to minimize the impacts of restricting harvest in old growth, they say what they really mean is to stop harvesting of stands 350 years old or older.

Obviously, the more restrictive definition that is used to lower the acreage that qualifies. We believe the Forest Service definition used in their Regional Planning Guide for the Pacific Northwest Region provides a suitable definition for what most people mean when they talk of old growth timber.

The statistics included in this statement are based on that definition. From a timber perspective it is a stand of trees over 200 years old made up of shade tolerant and shade intolerant species, usually in a multi-layered canopy with trees of several age classes, including standing dead and down material, where the evidence of man's activity would not significantly alter other characteristics of the stand.

Preservationist organizations contend that if harvesting is not halted on federal lands, old growth timber will disappear. Some have claimed it would be gone in ten years, others in thirty or fifty years. The fact is, there will be old growth timber ten years from now, thirty years from now, a century from now and two centuries from now. In fact, unless we allow these forests to burn, we will have as much or more old growth 200 or 250 years from now as we have in the State of Washington today! And today we have a lot! There are over 220 square miles of old growth timber (1,418,700 acres) that will never be harvested, having been permanently set aside by Congress in National Parks and Wilderness Areas. In addition, there are 3,400 square miles of young growth timber (2,180,000 acres) in these parks and

wilderness areas which are permanently restricted from harvest that range from young seedlings which have been established on recent fires up to timber that is 200 years old.

Two Hundred years from now, or say conservatively, 250 years from now, this young growth timber would certainly meet the definition for old growth timber, thus on average over the next 250 years, 8,720 acres will be added to the inventory of old growth timber stands (2,180,000 acres : 250 years) or 727 acres per month, 168 acres per week, or 24 acres per day or 1 acre per hour.

Yes, what I am saying is that there is irrefutable evidence that if we protect these forest lands that have been reserved from fire, one acre per hour of old growth would be created per hour for the next 250 years.

Now obviously we are not going to have a perfect record as far as protecting these areas from fire is concerned, but it is reasonable to assume that we can hold fire losses to 25% or less of the forest land acres in national parks and wilderness areas within the state, which would mean fire losses are held to less than 900,000 acres. If we do so, there will be at least as much old growth timber in Washington State two and a half centuries from now as there is today. This old growth timber will extend from sea level through all of the elevation levels to timberline and it will be representative of all of the major eco-types found on forest lands in Washington State.

Unfortunately, preservation groups oppose efforts to control wild fires in Wilderness Areas and National Parks. As early as 1970, several fires in old growth timber were allowed to burn in the North Cascades National Park. In 1970 I discussed this policy with Park Superintendent Roger Contor. He said in so many words, we have too much old growth timber in the park and since there is no timber harvesting allowed, it is best that we allow some old growth to burn.

I hiked into the Thunder Creek fire to see for myself the old growth timber that was being consumed by that blaze. The fire started about July 20th and was allowed to burn most of the summer. The Park Service was fortunate that they didn't get fire conditions like that which occurred in Yellowstone last summer. I also hiked into the Hoh Lake Fire in the Olympic National Park which burned several hundred acres of old growth in 1978. Again, the Park Service was fortunate.

In the Wild Cascade, a magazine published by the North Cascades Conservation Council (a prominent local preservation organization), Park Superintendent Roger Contor was interviewed in December 1970 regarding the Park Service fire suppression policies. He stated, "basically, the policy is to let most naturally caused fires to burn unchecked. Actually, this is what really has been happening all along, though no one is willing to admit it." Later in the interview he stated, "now, we don't plan

to burn the park out or any significant percentage of it to go up in smoke." I wonder if the Park Service superintendent of Yellowstone said the same thing in explaining their fire policy.

Regarding this "let burn" policy, the North Cascades Conservation Council stated in their August-September 1970 issue, "the (Park) Service is to be complimented. Lightning started fire is natural and nature is what the National Park is all about.

Unfortunately, Smokey Bear still forces the (Park) Service to fight a lot of fires which ought to be allowed to play their role in nature's scene." The Sierra Club, Wilderness Society and other extremist environmental organizations also support this "let burn" policy.

If we are to learn any lessons from Yellowstone, it is when you decide to let a fire burn it isn't good enough to be right 99 times out of a 100. You have to be right every time and we simply aren't smart enough to know when we can get away with allowing fires to burn, which will only consume a few acres. Eventually, all of the conditions will be right, conditions which are impossible to predict at the time the fire starts, then boom, you have a conflagration that may consume hundreds of thousands of acres of old growth timber.

If preservationist organizations were truly concerned about maintaining stands of old growth timber, one would think they would support President Reagan's decision to scrap the policy and

President Bush's recent decision not to reinstitute the "let burn" policy. Preservation organizations, however, even after the Yellowstone fire, continued to support the "let burn" policy and did so at a hearing this winter in Seattle where Charles Raines, speaking on behalf of the Sierra Club, endorsed the let burn policy. At that hearing I testified in opposition to the policy which fortunately, at least for the time being, is not being implemented.

The preservationist positions are clearly aimed at stopping timber harvesting, not at preserving spotted owl habitat or old growth timber. If the public feels it is important to maintain stands of old growth timber, it is clearly possible to do so without restricting timber harvesting on one additional acre outside of current Wilderness and National Park areas in Washington State. In fact, as I have stated, it is clearly possible to maintain more old growth timber than exists in Washington State today. That is, more than 2,688,400 acres of old growth timber, more than 60 million old growth trees. Enough old growth timber to provide habitat for the entire array of species which apparently thrive better in this habitat than in younger growth timber.

Thank you for the opportunity to include this testimony in the record.

WASHINGTON STATE:
CURRENT LANDS WITHDRAWN
FROM RESOURCE PRODUCTION

October 1987

<u>National Park System</u>	<u>Total Acres</u>
Grand Coolie Dam National Recreation Area	100,000
Ft. Vancouver National Historic Site	209
Lake Chelan National Recreation Area	62,000
Mt. Rainier National Park	235,000
North Cascades National Park	505,000
Olympic National Park	915,000
Ross Lake National Recreation Area	118,000
San Juan National Historic Park	1,800
Whitman Mission National Historic Site	100
 Total Park Acres	 1,937,109
 <u>National Monuments</u>	
Mount St. Helens National Volcanic Monument	110,300
 Total National Monument Acres	 110,300
 <u>National Forest Wilderness</u>	
Boulder River Wilderness	49,000
Buckhorn Wilderness	45,800
Clearwater Wilderness	14,300
Colonel Bob Wilderness	12,100
Glacier Peak Wilderness (pre-1984)	464,000
Glacier Peak Additional Wilderness (1984)	113,000
Glacier View Wilderness	3,000
Goat Rocks Wilderness (pre-1984)	82,000
Goat Rocks Additional Wilderness (1984)	23,000
Henry M. Jackson Wilderness	103,500
Indian Heaven Wilderness	20,600
Lake Chelan-Sawtooth Wilderness	150,800
Mount Adams Wilderness (pre-1984)	32,400
Mount Adams Additional Wilderness (1984)	14,400
Mount Baker Wilderness	132,200
Mount Skokomish Wilderness	15,600
Norse Peak Wilderness	50,900
Pasayten Wilderness (pre-1984)	505,500
Pasayten Additional Wilderness	24,300
Salmo Priest Wilderness	41,300
Tatoosh Wilderness	15,700
The Brothers Wilderness	17,200
Trapper Creek Wilderness	6,000
William O. Douglas Wilderness	166,600
Alpine Lakes Wilderness (pre-1984, no change)	393,400
Wenaba-Tucannon Wilderness (pre-1984, no change)	112,900
 Total National Forest Acres	 2,609,500
 TOTAL	 4,656,909

OLD GROWTH TIMBER ON FEDERAL LANDS IN WASHINGTON STATE

Areas	Reserved Acres	%	Not Reserved Acres	%	Total Acres	\$
<u>National Forest</u>						
Mt. Baker-Snoqualmie	234,400	35.1	432,600	64.9	667,000	100.0
Olympic	26,000	12.0	191,000	88.0	217,000	100.0
Gifford Pinchot	19,000	8.2	212,000	91.8	231,000	100.0
Okanogan	77,000	61.1	49,000	38.9	126,000	100.0
Colville	12,900	6.1	199,100	93.9	212,000	100.0
Wenatchee	147,000	46.1	172,000	53.9	319,000	100.0
Umatilla (WA)	11,400	44.9	14,000	55.1	25,400	100.0
TOTAL	<u>527,700</u>	<u>29.4</u>	<u>1,269,700</u>	<u>70.6</u>	<u>1,797,400</u>	<u>100.0</u>
<u>National Parks</u>						
Mt. Rainier	87,000	100.0	-	-	87,000	100.0
North Cascades & NRA's	354,000	100.0	-	-	354,000	100.0
Olympic	<u>450,000</u>	<u>100.0</u>	<u>-</u>	<u>-</u>	<u>450,000</u>	<u>100.0</u>
TOTAL	<u>891,000</u>	<u>100.0</u>	<u>-</u>	<u>-</u>	<u>891,000</u>	<u>100.0</u>
TOTAL FORESTS AND PARKS	<u>1,418,700</u>	<u>52.8</u>	<u>1,269,700</u>	<u>47.2</u>	<u>2,688,400</u>	<u>100.0</u>

NOTE: Old Growth timber is stands of trees generally over 200 years old.

Reserved lands are those permanently restricted by Congress from timber harvest (principally National Parks, Wilderness and National Recreation Areas).

Source: U.S. Forest Service - National Forest offices.
National Park Service - Regional Office, Seattle.

Prepared by: Northwest Independent Forest Manufacturers

7-23-87

ADDITIONS OF OLD GROWTH FROM RESERVED AREAS
ON FEDERAL LANDS IN WASHINGTON STATE

	<u>Acres</u>
Total Acres National Parks & Federal Wilderness Areas	4,656,909
Est. acres of Forest Lands	3,600,000
Old Growth Forest Lands	1,420,000
Young Growth Forest Lands	2,180,000
Average Old Growth additions over the next 250 years - (2,180,000 : 250)	
Per year	8,720
Per month	727
Per week	168
Per day	24
Per hour	1

On average unless National Parks & Wilderness are ravaged by fire, disease or windstorm - 1 acre/hour will become old growth for the next 250 years.

Source: Northwest Independent Forest Manufacturers

6/5/89

July 3, 1989

Subcommittee on Forests, Family Farms and Energy
C/O Allison Biggs
House Committee on Agriculture
1301 Longworth House Office Building
Washington, D. C., 20515

Dear Subcommittee Member:

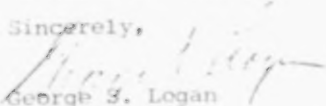
A concerted letter writing campaign is in progress in an effort to sway members of Congress to the side of the lumber industry. Many of these letters are simplistic in nature. They express an unwillingness to look at the overall picture and address it in a manner that will provide an answer to the present and the future.

There comes a time in every industry when it must make an honest assessment of it's future. At this time the forest products industry must thoughtfully think out their problems from the standpoints of both economy and ecology. We can look at Scotland and Japan as blatant examples of countries that have stripped their lands of all timber and are now dependent wholly on outside sources. Pictures of several national forest areas depict the devastation of clear cutting practices. Any decisions must strive to correct this ravaging of our public lands.

Our national forests are a public trust and must be wisely managed for the present and the future. To completely strip them of the old growth is nothing short of criminal.

I am not a member of any environmentalist organization. I am a concerned citizen who is devastated by the cut, slash and burn seen so commonly throughout the Northwest. I ask that you on the committee look at the whole picture and arrive at an equitable solution for all parties.

Sincerely,


George S. Logan

19 Willow Place, Monterra
Port Angeles, Washington, 98362



WESTERN WASHINGTON COMMERCIAL FOREST ACTION COMMITTEE

Post Office Box 1159 • Forks, Washington 98331 • (206) 374-6699

July 12, 1989

Members of the U.S. Congress Subcommittee
on Forests, Family, Farms and Energy
c/o Allison Biggs
1301 Longworth House Office Building
Washington D.C. 20515

Dear Committee Member:

As you know, timber towns and industry in Oregon and Washington are feeling the pinch of declining federal timber supplies harder each month. Without prompt action to restore federal timber sales, these artificially created log shortages will have catastrophic social and economic impacts on our timber dependent communities.

The sad part is, these shortages maybe wholly unnecessary. Harvest prescriptions are being developed to create habitat corridors for spotted owls and other wildlife in forests managed for timber harvest. The report of the Commission on Old Growth Alternatives for Washington's Forest Trust Lands provides strong evidence that such prescriptions are applicable on federal as well as state forests. See copies of this report provided to members of Washington's Congressional Delegation by State Land Commissioner Brian Boyle.

The growing body of research on spotted owls suggests a few parallels with the 1970's snail darter-Tellico Dam case. The attached copy of a 5/29/89 Peninsula Daily News article describes the tortuous path of that case. The punch line is: after the dam was completed, the snail darter was found thriving in other streams of southern Appalachia - which leads to the inescapable conclusion that in fact, it was never threatened or endangered outside of the court. With developing harvest technology and expanding research, we may also find healthy populations of spotted owls everywhere except in the courts.

In any case, I submit for your consideration the proposal that immediate legislative action to restore F.Y. 89, 90 and perhaps also 91 federal timber sales is fully justified. Without such short term relief, the timber based economy of Forks and other timber towns will be decimated. Until the truth about spotted owl habitat and populations can be clearly and factually demonstrated, we deserve an opportunity to keep logging federal timber for the economic survival of our community and people.

Sincerely,

Ben Lonn

Ben Lonn
Co-chair of WCFAC

c.c. Washington Congressional Delegation
Brian Boyle
File

rck

Tiny fish teaches lessons to both sides in fracas

Continued from Page 1 (See Page 1, 2)

11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

SEATTLE (AP) — What could an owl learn from a fish? Perhaps nothing, but the lesson of a certain fish — the small darter — can speak volumes to those who would like to save, or eradicate, the Northern spotted owl.

The bird has become an environmental symbol for the 1980s, much the way the tiny small darter did in the 1970s when it almost killed a \$100 million Tennessee Valley Authority dam project.

The owl is the focus of a debate over old growth forests that make up the birds' habitat in Northern California, Western Oregon and Washington and a small area of British Columbia.

Environmentalists want to save the last remaining virgin forests not only for the owls, but also for the valuable ecosystems they represent.

Timber companies, and the people who

work for them, want the old trees to meet the high demand for timber in an era of dwindling supplies.

Attempts to resolve the dilemma have polarized the region, frustrated lawmakers seeking a compromise, and been given to federal courts in hopes of finding a solution.

The same thing happened with the small darter, which eventually gave way to the dam. The fish found other streams to live in. The spotted owls may not have that chance.

"In a sense the issues are very much the same," said David Wilcove, a biologist for The Wilderness Society. "A single species has become the focus of a great environmental travesty."

In the small darter's case, it was the loss of another free-flowing river to the flood-control, power-generating, redevelopment

forces of the TVA.

"In the case of a spotted owl it's, in a sense, an entire ecosystem," Wilcove said. "We understand the individual parts but not the whole machinery. That's why the focus is on the small darter, or the owl."

The small darter was discovered by ichthyologist David Etnier of the University of Tennessee, who was hired by the TVA to survey the Little Tennessee River for an environmental impact report on the Tellico Dam.

Etnier found schools of a three-inch fish he'd never seen before and assumed lived only in this clear stream treasured by trout fishermen from Kentucky to Georgia.

A graduate student studying under Etnier mentioned the fish find to a law school buddy, who happened to be looking for a term paper subject.

"I thought, 'This is great,'" said Hank

Owl

Continued from A1

With so many outsiders calling the small darter "the little fish," people like Jack Moffitt of Wy-Ka Cedar Products and Sedro Woolley get mad.

"We're not a bunch of old, mean loggers who just rape the land and leave," he said. "We're just as concerned with it as everybody else."

But there is much more at stake than board feet of lumber and a subspecies of spotted owls, said Peter Morrison of The Wilderness Society's Seattle office, who insists, "I'm no tree hugger."

"We need to consider long-term

impacts on biological diversity," said Morrison, a forest ecologist, noting that relatively little is known about virgin forests and interactions between plants and animals in them.

"I'm not willing to play God and say the only thing we need is Douglas fir," he said of the industry's reforestation practices.

The unique attachment of the owl to old growth is what has put the bird in the middle of the controversy. Biologists say that while the owl can use other forest land, it requires a certain amount of old growth for nesting and

maning. If that old growth is too fragmented, the owl could spend so much time seeking food and shelter that it wouldn't have time or energy to mate.

The Wilderness Society has estimated less than 15 percent of the original old growth forest remains in the owl's range from Northern California to southern British Columbia. What is left is so badly fragmented that it is worthless as habitat for the owl and other wildlife.

"People want to say, 'It's just down at a table and reasonably talk about this dividing of a loaf,'" when in reality the loaf is all gone," said Rick Brown, a former biologist on the Mount Hood National Forest and now working for the National Wildlife Federation.

"What we are doing is squabbling over the crumbs."

But Ted Anderson, executive director of FFACCS, a Skagit Valley group organized this spring

to mount a public relations campaign in defense of the industry, said it's the livelihood of timber workers and their families that's at stake.

Establishment of national parks, wilderness areas, wild and scenic rivers and other set-asides have removed 51 percent of the federal forest lands in Washington from the timber base, he said.

"We simply can't write off our industry," he said. "The Oregon Natural Resources Council said the timber industry is changing, or no owl."

"The industry has problems on both the demand and supply end that will cause a major transformation," he said. He said a shrinking supply of

raw wood, continued modernization, the continuing switch to smaller, uniform tree-farm logs, and other products substituting for wood would take tolls on jobs.

A study by The Wilderness Society estimates the 71,500 timber industry jobs in Washington and Oregon in 1985 will shrink to half that by 2030.

Stopping the harvest of old growth altogether would eliminate only 6 percent of the timber and 2,100 extra jobs in that period, the study said.

Brown faults the Forest Service for not following through with commercial thinning programs that would provide needed timber without taking away habitat from the owl.

Hill, now a lawyer in Chattanooga, Tenn. Hill launched the litigation that led to a 6-3 Supreme Court decision supporting a broad interpretation of the Endangered Species Act.

Changing the act didn't remove the roadblock, either.

The fact that a tiny fish, previously unknown, had held up a massive public works project helped persuade Congress to revise the act, establishing a committee to review such cases.

The committee refused to declassify the darter, which continued to delay the dam until former U.S. Sen. Howard Baker, R-Tenn., attached a rider to an appropriations bill exempting the project from the Endangered Species Act.

After the Tellico Dam was completed, the small darter was found to be thriving in other streams of southern Appalachia.

Box 157
 Beaver, Wa 98305
 July 7, 1989

Subcommittee on Forests
 c/o Allison Biggs
 House Committee on Agriculture
 1301 Longworth House Office Bldg
 Wash D.C. 20515

Dear Committee Member:

The Old Growth Timber should be kept within the cutting cycle. There is already enough saved for the spotted owl and the environment. The National Park and the Wilderness Areas already have half of the Olympic Peninsula. The spotted owl issue isn't even a proven fact that they are endangered.

If the Old Growth stays out of the market the town of Forks and other small towns that depend on the timber industry will die.

Several families from our area have already moved to Alaska. Our daughter is only working part time. We had to lay off 5 members of our logging crew. These 6 people are just from our own small timber Co.

TREES ARE A Renewable Resource

Concerned Citizens
 Fred & Bev Loushin

Marcella Hunt
 PO Box 45
 Clallam Bay,
 Wa 98326

Allison Biggs
 1301 Longworth House Office Bldg.
 Washington, D.C. 20535

Dear Committee Members,

I'm writing to you in hopes of your support in logging the old-growth forests. I think they should be treated like a crop & used.

There are way to many acres set aside already for those who want to "save the forests."

My area is very dependant on the timber industry & I don't have enough time to list all the persons who will be drastically effected if logging the old growth stops.

Sincerely,

Marcella Hunt

PLEINES

LOGGING COMPANY

July 3, 1989

Subcommittee on Forest, Family Farms, and Energy
c/o Allison Biggs
House Committee on Agriculture
103 Longworth House Office Building
Washington, D.C. 20515

Dear Committee Member:

To the best of my knowledge, the oldest old growth Douglas Fir timber stand is approximately 200 years old, at which point Douglas Fir will start to rot on the stump. If at this time it is not harvested and replanted it will die and other species will take its place. I feel there is a need to continue harvesting old growth timber stands.

Without the current harvesting of timber the impact on many cities and small communities would be devastating, due to the amount of paper products, lumber, paint thinners, etc., that are used in everyday life. The loss to jobs, schools and revenues would be phenomenal.

The timber industry as a whole are the true "New Enviromentalists", as we are able to use and renew all vital forest lands, in order to keep a stable recreation and enviromental structure. We believe in reforestation in what has been harvested for our children and grandchildren.

TREES ARE A RENEWABLE RESOURCE

Sincerely,



Fred T. Pleines
dba Pleines Logging Company

June 30, 1987

I am writing to express my concern for the proposed curtailing of the harvesting of old growth timber on the Olympic Peninsula, State of Washington.

It is essential to the economy of most of the cities & towns in our area to continue planned harvesting of this forest resource. As the timber ripens it should be cut just as any other agricultural crop. There should be a definite plan as the aesthetic value of our beautiful country is preserved. There



is so much timberland that is unusable. I feel little danger of depleting our forests & plenty left for the animal habitat.

Please give this your earnest effort & consideration.

Signed: E. Hancock M. Priest
1621 E 5th
Port Angeles, WA
98362

GARY F. RATZLAFF
~~18191 Britton Drive, S.W. Seattle, WA 98166~~
 PO BOX 2351
 PORT ANGELES, WA. 98362

Sub Committee on Forests, Family Farms, and Energy C/O
 ALLISON BIGGS
 House Committee on Agriculture
 1301 Longworth House Office Building
 Washington DC 20515

DEAR COMMITTEE MEMBER:

I LIVE AND WORK ON THE OLYMPIC PENINSULA IN THE
 STATE OF WASHINGTON, SPECIFICALLY IN PORT ANGELES.
 FROM MY HOUSE I LOOK AT 1,000,000 ACRES OF
 SET ASIDE LAND IN THE OLYMPIC NAT. PARK. AND
 DRIVE DAILY IN MY JOB THRU ANOTHER 600,000 ACRES
 SET ASIDE LAND IN NAT. FOREST AND OTHER AGENCIES.
 MY JOB IS DEPENDENT ON THE TIMBER INDUSTRY
 AS 95% OF MY BUSINESS IS DONE WITH THE LOGGERS
 AND MILL OWNERS ON THE PENINSULA.

SO CALLED "OLD GROWTH TIMBER" IS JUST A MATURE
 TREE THAT SHOULD BE HARVESTED AS IT IS DYING —
 JUST LIKE HUMANS DIE AT A SPECIFIED TIME
 IN THEIR CYCLE. THERE IS 5,400,000 ACRES
 IN THE STATE OF WASHINGTON ALREADY SET ASIDE
 AND WE MUST HAVE A SUPPLY OF TIMBER
 AVAILABLE TO KEEP FAMILIES IN FORKS, CLALLAM
 BAY, JUICE AND ALL THE LOGGING COMMUNITIES
 IN OUR AREA. LAND BASE MUST BE STABLE
 AND OLD GROWTH TIMBER MUST STAY IN THE
 CUTTING CYCLE. FOR OUR SURVIVAL

Gary F. Ratzlaff

Subcommittee on Forests, Family Farms, and Energy
c/o ALLISON BIGGS
House Committee on Agriculture
1301 Longworth House Office Building
Washington, D.C., 20515

Dear Committee Member,

"JUDGE DWYER HAS PUT OFF ANY DECISION REGARDING THE
FOREST SERVICE INJUNCTIONS INDEFINITELY....."

This means that 1.2 billion board feet is held up
because of preservationist appeals.

It is difficult to understand why ONE PERSON, even
though a judge, should be given the power to make
such vital decisions in regard to people's lives.

It is difficult to understand how such a small minority
of preservationists, who must advertise in the help
wanted sections of the papers and pay "volunteers" to
support their causes, should be given the power to put
large numbers of people out of work, severely damaging
the economy of numerous communities.

Surely there are better ways to decide these issues
without giving so much power to so few people.

WHILE THESE DELIBERATIONS ARE UNDERWAY, FAMILIES AND
THEIR SCHOOL AGE CHILDREN SHOULD BE PROTECTED, AS WELL
AS THE SPOTTED OWL

Sincerely,

Charles A. Sesna
Charles A. Sesna

Betty B. Sesna
Betty B. Sesna

20 Willow Place, Monterra
Port Angeles, Wash., 98362

COMPLETE WIRING SERVICE

CONTRACTING & SUPPLIES

LIGHTING FIXTURES

Angeles Electric
INCORPORATEDPHONE 457-7415
524 EAST FIRST STREET
PORT ANGELES, WASHINGTON
98362

June 29, 1989

Dear Committee Members:

The way our government works sometimes puzzles me. That a judge can change the purpose of an entire agency from forest management to wilderness seems wrong. I thought the congress of the United States had formed and given the appropriate jurisdiction to the appropriate agencies to manage our natural resources?

It is my opinion that congress should be asking the questions and legislating the solutions, not our court systems.

The U. S. Forest Service is doing an excellent job of managing our forests with the best trained personnel in the world. I feel they should be allowed to continue their work, and if the congress thinks the people of this country want to have our resources managed differently, they should mandate those changes.

A person has to wonder about a court system that says, its alright to burn our country's flag.

Sincerely,



Ted Simpson

STATEMENT FOR THE RECORD
Before the
SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS
SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY
on
OLD-GROWTH FORESTS IN THE PACIFIC NORTHWEST

JUNE 20 AND 22, 1989

A Position of the Society of American Foresters*

Old-Growth Forests

Old-growth forests are valuable for ecological, scientific, and aesthetic reasons in addition to their timber production value. Old-growth ecosystems are located in areas allocated for timber harvesting and areas reserved for wilderness, national parks, and research. The Society recommends that public-land managers develop policies to maintain old-growth ecosystems, to keep management options open, and to allow the harvest of unreserved old-growth forests.

Definition and Inventory

A useful definition of old-growth ecosystems in Douglas-fir forests of the Pacific Northwest has been developed. This definition is based on the ecological characteristics of stands that describe their structure, composition, and function. While the definition needs further refinement for inventory purposes, it provides a more appropriate means of identifying old-growth forests than age alone.

*Approved by the Council of the Society of American Foresters on July 6, 1989. This position is based on positions of the Society of American Foresters on Old-Growth Forests in the Pacific Northwest, Forest Wilderness Allocation, and Land-use Planning Process.



Many of the present conflicts are over differences in the definition and quantity of old-growth forests. In the mid-1980s, the USDA Forest Service used a classification that grouped mature and old-growth stands together, while the Wilderness Society employed a definition with additional criteria for old-growth forests which it used for its survey three years later. The different definitions resulted in two different estimates of old-growth acreage.

The Society of American Foresters recommends that an ecological definition of old growth within Douglas-fir ecosystems be adopted by the Forest Service and other public agencies principally responsible for managing old-growth forests in the Pacific Northwest. The Society recommends refinement of this definition to facilitate its use in forest inventory. Ecological definitions of old-growth ecosystems should be developed for use on other forest types, as well.

Once old-growth ecosystems are well defined, managers need an adequate inventory before they can make decisions about management, including harvesting. Existing inventories are inadequate on public lands in the Pacific Northwest. An adequate inventory should include data on stand structure, stand composition, quantity, and geographic distribution. The Society recommends that public land managers modify their inventory practices to identify old-growth ecosystems on public forests, including lands excluded from harvest.

Land Allocation

While timber production is one important forest use, some land should be maintained in an old-growth state for wildlife habitat, aesthetic enjoyment, scientific study, and primitive recreation. Allocation of the nation's forest base often creates intense public and professional debate about the amount of land designated for intensive timber management and for other primary uses such as wildlife habitat, developed recreation, or wilderness. The Society believes the objectives of forest owners should be the basis for resource management decisions. In the case of federal land, this is the public. Once these objectives have been established, foresters should manage those lands accordingly.

Planning for land allocation includes assessments that would address (1) the spatial distribution needed to cover ecological, historical, and biological considerations, (2) the compatibility of a set-aside designation with other resource-management activities, such as habitat for wildlife species, (3) the potential impact on the well-being of local economies, and (4) an assessment of the cumulative demands of national and regional constituent's needs versus local constituent's needs.

Land-Planning Process

In response to public controversy about federal land management in the 1970s, Congress enacted the 1974 Forest and Rangeland Renewable Resources Planning Act, the 1976 National Forest Management Act for the Forest Service, and the 1976 Federal Land Policy and Management Act for the Bureau of Land Management. Although the planning process authorized by this legislation is very complex, the Society believes it is responsive to public input and can serve as an effective means to manage conflicts in allocation.

The Society is concerned that, through intervention on the old-growth issue, Congress will interrupt the planning process before it is completed. By assuming this responsibility, Congress would be weakening the very purpose of planning and setting an undesirable precedent. The Society is deeply concerned about the implications of forest planning from the House and Senate floor and the resulting impacts on professional management of federal land by the Forest Service and the Bureau of Land Management.

The Society supports sound professional management of natural resources and can expand its role to function as an arbitrator in certain land-management situations. The Society does not advocate one land use over another, but believes that foresters and other professional resource managers should be actively involved in the allocation process by objectively identifying the social, economic, and ecological costs and benefits of allocation alternatives.

Recommendations

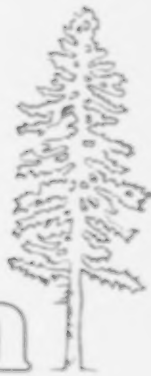
- The Society supports an ecological definition and believes that improved inventories are essential to the allocation and the management of old-growth forests.
- The Society believes that land should be allocated to meet public objectives.
- The Society supports the existing planning process as the most appropriate method for land management on public lands.
- The Society is willing to assist in facilitating agreement on this issue between interested parties.

The Society of American Foresters, with about 20,000 members, is the national organization representing all segments of the forestry profession of the United States including public and private practitioners, researchers, administrators, educators, and forestry students. The Society was established in 1900 by Gifford Pinchot and six other pioneer foresters.

Objectives of the Society are to advance the science, technology, education, and practices of professional forestry in America and to use the knowledge and skills of the profession to benefit society. Members subscribe to a code of professional ethics.

The Society is the accreditation authority for the professional forestry education in the United States. Its periodicals are the monthly Journal of Forestry, the quarterlies, Forest Science, Southern Journal of Forestry, Northern Journal of Forestry, and Western Journal of Forestry, and the annual Proceedings of the SAF national conventions.

Scheduling the Harvest of Old Growth



Old-Growth Forests in the
Pacific Northwest: A Position of the
Society of American Foresters
and

Report of the SAF Task Force on
Scheduling the Harvest of
Old-Growth Timber

SAF Executive Policy Series

Society of American Foresters
5400 Grosvenor Lane
Bethesda, MD 20814



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Report of the SAF Task Force on Scheduling the Harvest of Old-Growth Timber



In April 1982, the Council of the Society of American Foresters chartered a task force to study issues associated with scheduling the harvest of old-growth timber. The task force's charge included developing a definition of old growth, assessing present supply, reviewing current old-growth timber harvesting policies, and recommending alternatives.

SAF President Thomas Borden then appointed a ten-member task force (see Figure 1). The SAF Council—the Society's board of directors—accepted the final report of the task force in December 1983. The opinions expressed in the report are those of the task force and do not represent official views of the Society of American Foresters.

The old-growth report was the basis for a position statement on Old-Growth Forests in the Pacific Northwest adopted by the SAF Council on May 2, 1984. This statement (see page 1) represents the profession's view of old-growth forests and the measures needed to develop responsible policies for their management and harvest.

For more information on old-growth forests, SAF's position statement, or other resource policy issues of concern to the forestry profession, contact James R. Lyons, Director of Resource Policy, Society of American Foresters, 5400 Grosvenor Lane, Bethesda, Maryland 20814.

Conclusions and Recommendations



1. *Conclusion:* Lack of clarity in defining old growth prevents rational discussion and decisions about its harvest. Research has produced a useful ecological definition. This definition implies that true old growth is a small subset of all timber older than culmination of mean annual increment.

Recommendation: Adopt and refine the ecological definition.

2. *Conclusion:* Current inventory information is inadequate to accurately define the quantity and distribution of old growth, whether on lands open to harvest or those already reserved. An adequate inventory would include data on stand structure, composition, and geographic distribution and configuration.

Recommendation: Modify inventory practices to identify old growth on public and private forestlands, including those currently excluded from harvest.

3. *Conclusion:* Ecologically defined old growth embodies wildlife habitat, along with scientific and aesthetic values that merit study and preservation. Although the potential benefits of old growth are poorly defined and understood, a rational preservation policy that keeps an array of future options open is needed.

Recommendation: Develop a rational old-growth preservation policy that explicitly recognizes ecological values and future options and allows the harvest of nonreserved old growth to be rationally scheduled.

4. *Conclusion:* Benefits of adhering to a strict harvesting policy of nondeclining yield are poorly documented and do not justify the policy as a single-base concept for scheduling old-growth harvest.

Recommendation: Adopt a more flexible policy for scheduling timber harvests, including harvest of old growth not reserved as part of a rational policy.

(The complete report is held in the committee files.)

July 2, 1989
 5624 E. 144th St
 Payallup, No. 98373

Dear Committee Members:

We are writing to petition you to use all of your energy and authority to maintain a healthy, productive timber industry.

We are originally from a small town in the upper Cowlitz River Valley. This valley was settled by a group of brave and hearty people with far reaching dreams. One of those early settlers in the mid 1800's was our Great-Great-Great Grandfather, James Kandle for whom the town was later named.

We are relating this information so you may understand we grow up with a healthy respect for the land and its habitat. We grow up knowing that if you don't respect and take care of nature, ie, it will not be there later to take take of you.

But Taking care of something does not always mean taking it away so no one can ^{use it} ~~use it~~, putting it on a shelf, per se and saying Do NOT Touch.

Taking care of our forests means using them when they are mature and ready for harvest, then replanting, nurturing, and producing new viable forests.

We are going to lose our old growth whether we harvest it for a productive means and replant or let it die naturally. If left to die naturally it will and does result in rot and decay, becoming a potential for blow downs, wild fire, insect infestation and diseases which are then transmitted to any new young growth on the forest floor.

Logging only does what mother nature has done for years, except in a less destructive manner. We plant and reproduce our forest much faster and perpetuate its growth.

It also maintains many viable communities. Remember these vary communities contribute to our economy and our country's very future. It is these people and their families which are a portion of America's future.

We keep hearing that we don't need this industry anymore. We need to enhance the tourist industry further. This is stupid.

On One hand we are told ^{of} ~~and~~ the budget deficit and the trade imbalance

and on the other hand told industry is unimportant. That we should become a tourist and service industry nation, as it is cleaner and less polluting.

I guess we are just to trade our welfare dollars and food stamps back and forth. If that is the case who is going to pay the taxes to support those programs and the Giant industry called government that runs all the various programs.

We are an industry of ambitious hearty people. We want to be able to work and produce and be proud. We as a group are much more of an environmentalist than most of the preservationist that are running around trying to put life on a shelf to be admired from a distance.

This industry can be managed for generations and generations or we can allow a few to break the cycle of sustained yield and leave future generations without.

Our Future is in your hands so please HANDLE WITH CARE. We are entrusting not only our lives to you but also those of our children, their children, etc.

We also hear that a few have to suffer for the good of many. First of all,

who gets to decide who suffers? The
Thousands who will suffer or a very
small minority of preservationists. Secondly
who says it is a few? It seems to us
that we are discussing a very large portion
of several states economies. The very
economy that pays taxes on all levels
of government instead of draining the
economy on all levels of government.

Plus, if the preservationists ~~cut~~
win high^{ly} this they will soon be attacking
harder on other levels

Again please help us, our Nation
and yourselves also as we are really
all in this together.

Sincerely,

The Tubble Family

William and Pauline Tubble
Richard and Denise Tubble
(4 votes)

**MERRILL & RING INC.**

P.O. BOX 1058 PORT ANGELES, WA 98362 (206) 452-2367

July 6, 1989

Subcommittee on Forests, Family Farms and Energy
C/O Allison Biggs
House Committee on Agriculture
1301 Longworth House Office Bldg.
Washington D.C. 20515

Re: USFS old growth

Dear Committee Member:

We have watched with increasing dismay the dismantling of a basic industry, namely timber, which our company has been a part of most of this century. One of the steadfast and important suppliers of timber in our area is the Forest Service. Unfortunately this agency has been so maligned recently that no longer is it effective in maintaining a reliable source of timber for domestic manufacturing. Our decision last year to close and sell our sawmill operation which had operated continuously under our management for 30 years was reached when the facts of a declining timber supply from the Olympic National Forest became evident. Since then, the situation has steadily deteriorated.

The inventory of timber on the Olympic is largely old growth, thus curtailment of this important source, nearly eliminates the Forest as a supplier due to age class distribution; i.e., lack of mature second growth. Actually the situation is somewhat ludicrous here since establishment of the Olympic National Park guaranteed an area of 700 square miles of old growth trees forever.

Communities like lovely Port Angeles may be swelled with tourists this time of year but most of the time, timber pays the light bill. We are concerned, as the Congress should be, that the viability of timber dependent communities be maintained along with the quality of our environment, which we know has been cared for most conscientiously by the Forest Service since its inception.

We appreciate the opportunity to submit these remarks for your committee's deliberations. Thank you.

Yours truly,

Glenn R. Wiggins
Vice President

I have lived in Forks Wash. Almost
 forty years - My late husband
 was a logger and later a block &
 Shingle mill owner - My home
 is here in this little logging town.
 I'm very upset about this
 spotted owl thing about is trying
 to put loggers out of work -
 Our homes are here - we have
 worked very hard to own a home
 that would be worth anything
 if the logging stops. we would
 never be able to pay taxes on
 our land - Also our schools
 & hospital will suffer -

Please Check into Balance
 Management - The loggers here
 does not have any other trade
 and people would have to go on
 welfare to exist - These people are
 proud people - They don't want hand out.
 They don't want to loose their jobs because of
 of a few spotted owls - Thank you.

Mrs Jack Woody
 P.O. Box 353
 Forks, Wash. 98331

MANAGEMENT OF OLD-GROWTH FORESTS OF THE PACIFIC NORTHWEST

THURSDAY, JUNE 22, 1989

HOUSE OF REPRESENTATIVES; SUBCOMMITTEE ON FORESTS,
FAMILY FARMS, AND ENERGY; COMMITTEE ON AGRICUL-
TURE; JOINT WITH SUBCOMMITTEE ON NATIONAL PARKS
AND PUBLIC LANDS; COMMITTEE ON INTERIOR AND INSU-
LAR AFFAIRS,

Washington, DC.

The subcommittees met, pursuant to notice, at 10:10 a.m., in room 1300, Longworth House Office Building, Hon. Harold L. Volkmer (chairman of the Subcommittee on Forests, Family Farms, and Energy) presiding, together with Hon. Bruce F. Vento (chairman of the Subcommittee on National Parks and Public Lands).

Present from the Subcommittee on Forests, Family Farms, and Energy: Representatives Olin, Jontz, Johnson, Harris, Morrison, R. Smith of Oregon, Schuette, and Herger.

Present from the Subcommittee on National Parks and Public Lands: Representatives Owens, DeFazio, McDermott, Craig, R. Smith of Oregon, Duncan, and Thomas.

Also present: Representative Bosco.

Staff present from the Committee on Agriculture: Joseph Muldoon, assistant counsel; Alice Devine, minority associate counsel; Glenda L. Temple, clerk; Timothy P. De Coster, James R. Lyons, and Allison Biggs.

Staff present from the Committee on Interior and Insular Affairs: Dale A. Crane, staff director, James Bradley, Kurt Christensen, Charlene Seamens, and Nils Johnson.

OPENING STATEMENT OF HON. HAROLD L. VOLKMER, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF MISSOURI

Mr. VOLKMER. We will come to order. This is the continuation of the two subcommittees, the Subcommittee on Forest, Family Farms, and Energy and the Subcommittee on National Parks and Public Lands, Committee on Interior and Insular Affairs. It is a continuation of management of old-growth forests of the Pacific Northwest.

Our panels here today reflect more of the influence. First, the National Forest System and our governmental agencies and Bureau of Land Management, then also some of the State agencies and other environmental groups later on.

I want to welcome all the witnesses and everyone here today for a continuation of this, and hopefully, in the future, we will come to

a solution maybe not everyone will be happy with, but at least a solution to the problem in the Northwest. With that, I will yield at this time to the gentleman from Minnesota for a brief statement.

Mr. VENTO. Mr. Chairman, I have no comment. I appreciate the effort of the witnesses and the Forest Service and our colleagues to make this a meaningful set of hearings and I appreciate your cooperation.

Mr. VOLKMER. Now, I yield to the gentleman from Washington.

Mr. MORRISON. Mr. Chairman, thank you. We appreciate all the time that those of you from other areas are spending on a uniquely Northwest problem, although old-growth management is national and international in its scope. We thank you. I think we had an excellent hearing yesterday, and I look forward to what comes forth from the witnesses today.

Mr. VOLKMER. All right. Before we have our first panel, I would like to announce that we, on our side of the aisle, are having a caucus ongoing right now, and in about 10 or 15 minutes, we will probably have our first vote, so Bruce and I will have to leave somewhere along the line. Hopefully, we will have another democrat come in so we can continue.

I would like to start, at least, and our first panel is Mr. Dale Robertson, who is Chief of Forest Service, and accompanied by Mr. George Leonard, Associate Chief for the Forest Service; Dr. Thomas A. Spies, Plant Ecologist, Pacific Northwest Forest and Range Experiment Station, Forest Service; and Mr. Dean Stepanek, Assistant Director of Land and Renewable Resources, Bureau of Land Management, and he is accompanied by Mr. Paul M. Vetterick, Associate State Director for Oregon and Washington, Bureau of Land Management.

Gentlemen, those of you, the three that are going to testify, your statements will be made a part of the record. In which point you testify, you may either review the statement in full or summarize, however you so desire. Dale I want to welcome you, again, to the room, and I appreciate your being here, and you may begin.

**STATEMENT OF F. DALE ROBERTSON, CHIEF, FOREST SERVICE,
U.S. DEPARTMENT OF AGRICULTURE, ACCOMPANIED BY
GEORGE M. LEONARD, ASSOCIATE CHIEF**

Mr. ROBERTSON. Thank you, Mr. Chairman. As you know, this is a timely topic that the Forest Service has spent a lot of time on, and we are going to be spending even more time on the old-growth issue.

I would like to summarize my statement, and I would like to add a few things to it as I go along. I think this hearing is particularly timely, because the Forest Service has been working on this issue for a long time trying to sort out the proper role of old-growth forests in the management of the national forests.

We have a draft statement on the role of old-growth values in the national forests that is attached to my testimony, and that is our best shot at the role of old-growth forests in the National Forest System.

Old-growth forests are really important. They include a lot of values such as biological diversity, wildlife, fisheries habitat, esthetics, water quality as well as industrial raw material values.

So, the old-growth forests are a tremendous asset, both economically as well as environmentally. I do not know of any issue that the Forest Service is facing where the stakes are higher than in the management of old growth. We have to reach some kind of a reasonable balance in managing this valuable environmental and economic asset.

We believe the proper way to deal with this is at the forest plan level. Developing forest plans as required by the National Forest Management Act is the proper forum to try to sort out a reasonable balance on every national forest.

As you have heard this week, there is a lot of debate and disagreement on what is old growth, and a lot of arguments over definitions, especially for the Douglas-fir forests of the Pacific Northwest. The use of different definitions by the Forest Service and various interest groups has led to widely varying estimates of old-growth acreages.

So, we believe a nationally consistent definition is essential in order to reach agreement on this point, and we are presently working with our scientists, Dr. Franklin and Dr. Spies in developing that definition. We have developed a generic definition of old growth which we plan to use in the Forest Service to develop more specific definitions for each forest type. This definition was drafted by Dr. Spies, Dr. Franklin and others, and it is also attached to my testimony.

Since there has been so much discussion on this inventory situation and, quite frankly, a lot of loose information about it, I would like to try to put that in perspective as I see it. It goes back to the National Forest Management Act which was passed in 1976 which directed the Forest Service to prepare a forest plan over the next 10 years for each national forest. The first step that you have to take in preparing a plan is to inventory your resources.

We did that in the late 1970's and early 1980's to start the planning process. We did a timber inventory on every national forest, but that inventory was keyed to the timber resource. We measured such things as species, age classes, and site productivity. The purpose was to figure out how much timber we had on each forest so we could calculate the sustained yield of timber we could harvest and the allowable cut or the allowable sale quantity on each national forest.

I go back in time because we are talking about the late 1970's, and our thinking about the ecological values of old growth were really not very well developed 10 years ago. But, as time went on, we had our inventories completed, and we were trying to get the forest plans done, and in 1984, we issued the regional guide for the Pacific Northwest which gathered the knowledge about old growth at that point. The regional guide had an old-growth definition, again, based on what we knew at that time.

We directed the forests to inventory or come up with an estimate of how much old-growth forest they had. Now, what they had was a new definition. They had an inventory in place that was done for another purpose, but it did include the size of the trees and age

classes. They applied some judgement in trying to adapt an existing inventory to a new definition in order to come up with an estimate of how much old-growth forest we had. We did that, and we came up with 6.2 million acres in region 6, both east side and west side, region 6 being the Pacific Northwest.

So, we were well along in our planning process. Then 2 years later, Dr. Franklin and Dr. Spies came out with their definition of old growth based on the research they had been doing that was much more comprehensive than the one we had used 2 years earlier.

Now, the Wilderness Society later came along with their own definition of old growth based in part—and I want to emphasize based in part on the Franklin/Spies definition, but not the same—and they used our old inventory that was developed for another purpose to try to apply this new definition, and in 1988 they came up with different figures that are much less than the Forest Service.

I do not want to get into a lot of details on inventory, but I would like to make a point how your acreage of inventoried old growth can be so sensitive to just a little factor such as the number of snags. The Forest Service definition was that if a forest otherwise met old-growth criteria and attributes and had two or more snags per acre, it would qualify for old growth.

Then, Dr. Franklin and Dr. Spies, 2 years later, came along with a more refined definition. They said that in order to qualify for old growth, you need four or more snags per acre, and they need to be large. They need to be greater than 20 inches in diameter.

Then the Wilderness Society decided that even more snags were needed than Dr. Franklin and Dr. Spies recommended in order to qualify. They said, "You need five or more snags per acre, and they need to be even bigger. They need to be 24 inches in diameter." I do not know what basis the Wilderness Society used to go beyond that of the scientists, but nevertheless they did, and it was a much more restrictive definition which would reduce the amount of acreage.

If you look at the Wilderness Society's inventory and ours, a big factor is that we would inventory as old-growth forests stands with three and four snags per acre, and they—Wilderness Society—would not inventory these stands, which otherwise would meet the definition of old-growth forest. I point that out, how a little change in definition can make big changes in acreage.

Now, we are in the process of developing new inventories based on this new definition, and we will reflect the new definitions as we inventory the national forests. We are trying to accelerate the inventories to try to resolve this issue as fast as we can about how much old-growth forest we have.

So, just to summarize where our inventory comes out—again, with a different definition that no one else is using—our estimates are that we have 6.2 million acres of old-growth forests in Oregon and Washington. About 50 percent of that is set aside in wilderness or some other kind of protective designation where we do not plan to harvest timber, and the other 50 percent would be available for timber harvest and would be harvested over the next 50 years or so.

Mr. Chairman, in conclusion, I would like to summarize a few key points about how I see the situation. As I said before, the stakes are extremely high. The stakes are high environmentally as well as economically with the old-growth forests. The Forest Service is trying as hard as we know how to strike some kind of a reasonable and prudent balance in managing these important forests.

As you have probably heard this week, views are polarized and no one is happy with the Forest Service balance. Maybe our balance needs some adjustments. We are giving it our best shot, and as we learn more, we need to make adjustments. We are trying to manage through a very tough and difficult situation.

I have some personal experience in this. I spent 10 years of my career in the Pacific Northwest. I have personally dealt with this issue for the last 20 years, and I have gone through it, in my mind, back and forth many, many times. I just want to tell you that there is no simple answer to this issue.

Extreme views on both sides really are not very helpful. If our balance is not right, we need some suggestions on how that balance ought to be changed. Extreme ideological views on either side really are not very helpful to us in making that adjustment.

In my opinion, we do not have the luxury of stopping everything while we take time out and sort through all the details because the social and economic effects of doing that are tremendous. We are talking about 30,000 to 40,000 jobs in the Pacific Northwest at stake. We are talking about the livelihood of many communities. We are talking about school budgets, county budgets who depend upon timber sale receipts in lieu of taxes on private land for their budget. That is all at stake.

In my opinion, as important as this issue is, both environmentally and economically, we cannot be cavalier in our approach to resolving this issue, because there are huge potential social and economic disruptions to thousands of people and hundreds of communities.

But, even if you do not worry about the people of the Pacific Northwest, if you say their jobs are not important or their communities are not important, the timber coming from the Pacific Northwest is really important to the rest of the American people. We need wood coming out of the Pacific Northwest to meet the growing demands of the American people. We are already in a trade-deficit situation in forest products, and if you take the old-growth forests out of the production of wood products, you will be throwing this Nation into a much bigger trade deficit.

Now, I say all of those things because they are really important. I feel strongly about them, but I also feel strongly about the old-growth forests and the values in that old growth, and somehow we have to figure out some reasonable balance. I think it deserves our most thoughtful and best effort because it is, I think, the most difficult issue the Forest Service is facing. I welcome the advice and counsel of these two committees on how the Forest Service can strike a more reasonable and prudent balance in managing these old-growth forests.

[The prepared statement of Mr. Robertson appears at the conclusion of the hearing.]

Mr. VOLKMER. Thank you very much, Dale. With that, we will now hear from Dr. Spies.

STATEMENT OF THOMAS A. SPIES, PLANT ECOLOGIST, PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION, FOREST SERVICE, U.S. DEPARTMENT OF AGRICULTURE, CORVALLIS, OR

Mr. SPIES. Thank you, Mr. Chairman. I would like to give you a bit of a background on my career, and then briefly summarize my technical statement.

I have a Ph.D. in resource ecology and plant ecology from the University of Michigan. I have conducted research on old growth in the Lake States. I have studied landscape ecology and management in Germany, and have worked on threatened species in Costa Rica. For the last 6 years, I have worked on old growth in the Pacific Northwest, first as a post-doctor under Jerry Franklin, and for the last 4 years as a research scientist with the Forest Service.

First, ecosystems develop over long periods of time. We know that older stages differ from younger ones in a variety of attributes, including structure, function, composition. We define old growth generically as a forest ecosystem distinguished by old trees in the structural attributes they create. You should note that we are not just talking about old trees, however. The structural attributes associated with those old trees are critical to the functioning of the ecosystem.

The age at which old growth develops and the specific structural attributes vary widely according to forest type and other factors. In Oregon and Washington, for example, old-growth characteristics begin to emerge in Douglas-fir forests at between 150 to 250 years, depending on site and geographic location. In contrast to younger forests, old-growth Douglas-fir forests are characterized by large trees, wide variation in tree size and spacing, large accumulation of large-size snags and logs, decadence in the form of broken tops and diseases in the bowls of the trees, multiple canopy layers and canopy openings that form from the death of large canopy trees.

Compositionally, old-growth Douglas-fir forests have distinctive plant and animal communities. Some of the organisms in these communities may be dependent on old-growth forests for their survival, many others, perhaps, find optimal habitat in these areas.

The question of dependency on old growth is one that is extremely difficult to answer scientifically given the enormous spatial and temporal variation in the use of habitats by organisms. For example, old growth may be needed by some birds during severe winters where they find shelter and food, but during normal winters and other seasons of the year, old growth may not be important to those species.

Functionally, old growth is characterized by relatively slow growth of dominants. There is considerable mortality in old growth, but it is generally balanced by regeneration and growth of other trees in the stand.

Recent research coming out of the old-growth wildlife habitat program that was funded by the Forest Service suggests that some animal and plant species associated with old growth may be able to

find suitable habitat in younger, natural stands that have components of old-growth structure in them. Young forest plantations, on the other hand, managed for timber production primarily, are structurally simple. They lack large dead trees, have single canopy layers, have uniform sizes and spacings of trees. These forests are excellent for producing certain types of wood fiber, but, in general, do not provide habitat found in older or structurally more diverse forest stands.

Ecological issues and scientific issues regarding old growth really is a subset of biological diversity issues. They must be addressed at a number of spatial scales. This includes a stand scale, which is an area that we typically think of as anywhere from a few acres to 100 or more acres in size to a landscape scale that can range from hundreds of acres to tens of thousands of acres in size composed of a mosaic of different stand types.

I have already mentioned some of the structural features of old growth at the stand level. Old-growth forest stands do not, however, exist in a vacuum. Their position on the landscape mosaic and the stand conditions they have can influence the ecological function of the stands and the entire complex of the landscape.

Fragmentation of old growth in the Pacific Northwest into widely scattered small stands can negatively affect the moderate microclimates that are typically found in old growth. They can increase disturbance rates to edges of old growth stands, reducing the quality of old-growth habitat, and they can jeopardize the long-run viability of animal populations in those landscapes.

Much research is needed to identify the nature and magnitude of landscape effects and to develop management guidelines.

Significant opportunities exist to integrate timber and nontimber values at stand and landscape scales in an approach that has been called new forestry, that Jerry Franklin spoke about on Tuesday. New Forestry is really the practice of managing forest landscapes for diverse values. This approach consists of a variety of methods that include creating structural diversity in managed stands, aggregating cutting units to minimize fragmentation and control landscape pattern, and retaining old-growth stands in a managed landscaped matrix.

Preliminary analyses on one ranger district, indicate that these practices can be implemented with little or no modification of some of the standards and guidelines. The toolbox of our forest managers has been primarily limited to clearcuts and set-asides. Research and management need to work together to develop a larger set of tools to manage landscapes for biological diversity as well as desired yields and uses of forest lands.

I would like to pass out a diagram for your information on forest structure, and I would be happy to explain it and answer any other questions that you may have.

Thank you.

[The prepared statement of Mr. Spies appears at the conclusion of the hearing.]

Mr. VENTO. Thank you, Dr. Spies. We appreciate your efforts and that of your colleague, Dr. Franklin.

We will be back with a few questions, and regarding to that chart that you are handing out, we will be asking some questions concerning it.

Next, I think we have Dean Stepanek, the Assistant Director of Land and Renewable Resources, Bureau of Land Management. Dean, welcome to the hearing. Your statement is before us. You can summarize or read the relevant portions, thereof. Please, proceed.

STATEMENT OF DEAN E. STEPANEK, ASSISTANT DIRECTOR, LAND AND RENEWABLE RESOURCES, BUREAU OF LAND MANAGEMENT, U.S. DEPARTMENT OF THE INTERIOR, ACCOMPANIED BY PAUL M. VETTERICK, ASSOCIATE STATE DIRECTOR FOR OREGON AND WASHINGTON, AND MEL BERG, DISTRICT MANAGER, BUREAU OF LAND MANAGEMENT, ROSEBURG, OR

Mr. STEPANEK. Thank you, Chairman Vento. I believe that Chief Robertson did an excellent job of summarizing the situation faced by the agencies in western Oregon relative to the old-growth issue. We, at BLM, too welcome the committee's interest and counsel.

I have a rather succinct statement here, Mr. Vento, that points out the peculiarities of the BLM's presence in western Oregon and Washington. If I might, I will read a part of that.

The lands in Oregon and Washington administered by the BLM are managed in accordance with a wide variety of Federal laws. Two laws provide the guiding principles and policies for management activities. They are the Oregon and California Railroad Grant Lands Act of 1937 and the Federal Land Policy and Management Act of 1976.

The Oregon and California Railroad Grant Lands Act states that lands classified as timberlands or powersite-lands that are valuable for timber are to be managed for permanent forest production and the timber on such lands is to be sold, cut, and removed in conformity with the principles of sustained yield forest management.

The stated purpose of such timber harvesting is to provide a permanent source of timber supply, protect watersheds, regulate stream flow, contribute to the economic stability of local communities and industries, and provide recreational facilities.

The Federal Land Policy and Management Act of 1976 is particularly important for its emphasis on the land use planning process as the basis for land management decisions and its reiteration of the principles of multiple use and sustained yield.

It has been the practice of the Bureaus to utilize old-growth timber in accordance with timber management plans. These plans include the harvesting of old-growth timber as well as establishing several areas for the protection of other resource values and for scientific research. We are now reexamining our management practices in light of recent litigation dealing with protection of the northern spotted owl habitat and in preparation for developing resource management plans for the 1990's.

Of the 2.4 million acres we manage in western Oregon, over 2 million acres are classified as commercial forest land. Most are available for intensive management of timber. It is especially important to note that BLM timberland in western Oregon is not well

blocked but most commonly exists as alternate one-section tracks of 640 acres each interspersed with comparable private and industrial lands in a checkerboard pattern.

Furthermore, most BLM tracts are not, themselves, undisturbed but exhibit fragmented age classes as a result of several decades of timber harvest and forest regeneration. Thus, they represent a rich mosaic of new clearcuts, young plantations, pole, and mature size stands as well as old growth.

We are working with the Forest Service to develop a standard definition of what is considered old growth, as Dale mentioned. We do not necessarily endorse a single standard as to what constitutes old growth. For our current estimates, however, we identify trees that are over 200 years old although there are some ecological types, including those found in eastern Oregon and Washington, that might be considered old growth at an earlier stage.

Old-growth timber was included in an extensive inventory of all western Oregon BLM-administered forest lands completed last year. We estimate that about 448,000 acres of old-growth timber remain on BLM-administered lands in western Oregon. Of this total, about 143,000 acres are protected from timber harvest through existing management plans. The remaining 305,000 acres represent over one-third of the timber stand age classes available for harvest on our lands in western Oregon.

The economic benefits of old growth vary by market area and depend on the available inventory of old growth from all sources, public and private, in the area. Another consideration is how much second growth is available in the market area and the capability of the mills to utilize second growth.

If old-growth acreage were no longer available, the land base acreage available for harvest would shrink, and we would lose the available volume in the old-growth classification. Our plans consider the replacement of the older stands with the younger, more productive young forests. Loss of this base would significantly lower the volume of timber produced from BLM's land base.

With respect to our annual allowable sale quantity, old-growth timber accounts for 376 million board feet of our current sustained yield of 1.176 billion. The Oregon and California Railroad Grant Lands Act requires that BLM manage all suitable timber lands for the sustained production of forest products to provide for community and industry stability. Timber production is given priority on lands determined to be suitable, but we also consider other appropriate multiple use benefits.

We are developing Resource Management Plans—RMP's—for western Oregon with a great deal of public involvement in the process. These plans are designed to preserve and protect wild and scenic rivers, areas of critical environmental concern, unsuitable or fragile lands, habitat for endangered and threatened species, wilderness areas, cultural and historic sites, recreational facilities, and so forth. All of these nontimber values can and are accommodated on BLM lands in western Oregon within the timber dominant framework of our legislative mandate.

Timber is a renewable resource, and we can use it perpetually provided we manage it carefully. A particular stand of old growth can be managed, but cannot be preserved in perpetuity. Eventual-

ly, all forest land regenerates, if not by harvest, then by natural means. We are currently working with Jerry Franklin and Dr. Spies, two well-known forest ecologists with the Forest Service to develop ways we can incorporate management practices into RMP alternatives to provide for old-growth attributes.

Now, on the owl issue, just 2 weeks ago, the ninth circuit court of appeals reimposed an emergency injunction on BLM which had been imposed in one form or another for the past year. The injunction prohibits the offering for sale of old-growth timber within a 2.1-mile radius circle of any spotted owl habitat sites identified in BLM's Spotted Owl Environmental Assessment dated May 1987, and those additional sites identified since and known to BLM.

If you will look at the chart, there are some 450 sites that we currently know of. This gives you an indication of the pattern on the BLM lands in western Oregon.

The total impacts of the injunction are not known at this time. It might be significant to note that each of these circles represents an area of about 14-square miles. These injunctions continue to reduce the number of board feet planned for sale for fiscal year 1989 by approximately 30 percent; in other words, down to around 820 million from the 1.176 billion.

Two months ago, the Fish and Wildlife Service determined that the northern spotted owl warranted consideration for listing as threatened under the Endangered Species Act. BLM will confer and is conferring with Fish and Wildlife Service on any action that might impact the owl.

I will conclude by saying that it is my good fortune today, Mr. Chairman, to have with me Paul Vetterick, who is the Associate State Director in Oregon, with responsibilities for Oregon and Washington, and Mel Berg, who is currently the District Manager at Roseburg, Oregon, and soon to become the Bureau's Chief Forester here in Washington.

We have with us, also, sitting behind me, Ralph Morgenweck from the Fish and Wildlife Service, who is the Assistant Director for Fish and Wildlife Enhancement, and he is available to answer any technical questions you might have with regard to the Endangered Species Act or the consultation process.

Thank you.

[The prepared statement of Mr. Stepanek appears at the conclusion of the hearing.]

Mr. VOLKMER. Thank you very much.

I have several questions. Dale, to begin with, it appears that the Forest Service and the environmental groups may be coming closer together on a definition of old growth, from our testimony the day before yesterday. Is that correct or incorrect? Would you verify that?

Mr. ROBERTSON. I would say coming together, yes. We have a draft definition that Dr. Franklin and Dr. Spies came up with, and we are holding meetings out in the Pacific Northwest now with all the agencies and all the interest groups in trying to get agreement on that definition.

Mr. VOLKMER. Dr. Spies, where are you in negotiations? We had Dr. Franklin, basically, up the other day, and I thought, from his

testimony, that the people from the environmental groups that we might be real close. Is that correct?

Mr. SPIES. I would say that is generally true. During the past year, we have had at least two or three meetings in Portland to discuss the issue of old-growth inventory and definition. There was general agreement that the ecological definition that we published for Douglas-fir forests in 1986 is generally acceptable to the Audubon Society and the Wilderness Society and other groups that were present at those meetings.

Mr. VOLKMER. Now, their estimates that they have so far in doing their inventory, their estimates are a lot less than yours, Dale, on the amount of old growth that is available in the Pacific Northwest. It is outside the wilderness areas.

Do you agree with that, that you are all not together, yet, on the estimates?

Mr. ROBERTSON. Yes. Their acreage is much less than ours, and I think it goes back to a definitional problem. They inventoried different things than we did.

Mr. VOLKMER. Now, of course, you recognize—I hope all of you do, and I hope they do—that that means we do not know where we are. We are somewhere in between, I would say, as far as I and the Congress are concerned. I can either take your figure, their figure or somewhere in between, and you are not going to have a complete inventory by your new definition—it looks like—by 1993?

Mr. ROBERTSON. Well, we are doing two things. One is we are developing, under the new definition, an inventory for each national forest, and those will be completed by 1993, and we already have a couple of forests just about completed.

Now, realizing that this issue is not going to wait until 1993, we are doing something in the interim. By September 30, 1990, we will have a new inventory based on satellite imagery, such as Landsat. Now, it will not be perfect, but it will be better than anything we have now.

Within about 1 year or so, we will be able to give you an inventory of acres based on what we can see from the satellite.

Mr. VOLKMER. Dr. Spies, will that be using this definition—this generic definition—or something, whatever is worked out?

Mr. SPIES. To the extent it is important to realize that most inventory technologies cannot really utilize the definition as it was originally developed. It was not originally developed specifically for inventory application, although it can be modified for that. But, to the extent that we can translate that definition into something that can be used in Landsat and combining with ground-plots, yes, it will be.

Mr. VOLKMER. Well, I have here a Wilderness Society book, "Old-Growth in the Pacific Northwest: A Status Report," and their definition. Douglas-fir or western hemlock and Pacific silver-fir sites, and part of that definition, and so on, but part of it is, No. 3, conifer snags over 20 inches in diameter and 15 feet tall must be present at a density of at least four per acre.

You are not going to be able to determine that from a satellite photo, are you?

Mr. SPIES. That cannot be determined from a satellite photo. However, the satellite work will also be combined with ground

plots. The satellites are used to initially stratify the areas based on canopy characteristics—

Mr. VOLKMER. Will you be able to determine canopy characteristics from the satellite?

Mr. SPIES. That is what we are hoping to do. We have research underway that is going on at the same time that we are initiating this inventory.

Mr. VOLKMER. All right. Now, in your definition that you are working out with them, you have the generic one, here, that would apply to all. In other words, I read you the one for Douglas-fir or western hemlock. They also have—I will not go through them because my time is up—Douglas-fir or mixed conifer sites, and Douglas-fir on mixed evergreen sites.

Now, is the definition that you are going to work out be able to fit in with these types of definitions?

Mr. SPIES. Yes, those are our definitions, basically. What you are reading from is the definition that the Forest Service developed.

Mr. VOLKMER. This is the Wilderness Society's.

Mr. SPIES. Yes. What they are describing is the definition that we published in 1986, more or less.

Mr. VOLKMER. Page 89.

Mr. SPIES. Some are, more or less, changes, I believe.

Mr. VOLKMER. So, somewhere along the line, it does look like that we are getting close.

Mr. SPIES. They are close. There may be some slight differences, as Dale suggested, but—

Mr. VOLKMER. My time is up. I will have some more questions later. I will recognize the gentleman from Minnesota.

Mr. VENTO. Mr. Chairman, thank you.

Mr. Spies, in other words, I think the Chief said that the Wilderness Society used a different definition, but in essence it is the same definition, although it is subject to further modification in the future, you are basically on the same track. It is not an exact symmetry, but it is almost identical.

Mr. SPIES. It is the same to the extent that we are looking at the same kind of structural features, and we are fairly close, I believe, on the levels of some of those structural features, although it is not clear that there may be some differences.

Mr. VENTO. Chief, you portrayed a lot of sensitivity to this issue in your comments, but isn't there a fundamental problem here that the forest management plans which were planned to go into effect in 1980, that they were not permitted to go into effect because the administration sent them back to be redone. They were redone and they came back the same way. The plans asked for 3.9 billion board foot sale level. Because of the Appropriations Act, you have been selling 5.3 billion board feet per year, contrary to the plans.

In other words, you are cutting about 1.4 billion more board feet per year the last 7 or 8 years than is sustainable.

Mr. ROBERTSON. Well, we do not have approved plans in the Pacific Northwest except for a couple of forests.

Mr. VENTO. But, isn't the existing body of knowledge indicate that you can only sustain 3.9 billion board feet per year?

Mr. ROBERTSON. Our draft plans set about 3.4 billion board feet.

Mr. VENTO. That is existing knowledge. Is there some other knowledge out there that we need. Because of the Appropriations Committee in Congress you actually have been selling 5.3 billion, 1.3 billion board feet over the draft plans.

My point is that the owl is getting a lot of credit here that it may not deserve.

Mr. ROBERTSON. Well, let me explain. I do not want to sound like I am trying to explain this and get around the basic point you are making, but we need to—

Mr. VENTO. Well, I think your scientists are right.

Mr. ROBERTSON. The 4.0 billion board feet in the plans is net merchantable sawtimber, and then there is some material above that. So, really the forest plans in draft form ends up about 4.6 compared to the 5.2 billion board feet which includes everything.

Mr. VENTO. But there is a difference there that exists. It is going to exist. It says that it is not sustainable and that it does include some old growth.

Mr. Stepanek, what do you call for in your plans for cutting? When were they last revised?

Mr. STEPANEK. We are in the process of updating ours, as well, so we are at about the 10th or 11th year on the basis of plans developed for the 1980's.

Mr. VENTO. But, your mandate is different. Your mandate is to cut everything, isn't it? The mandate for the BLM is to cut all of this without necessarily being sensitive to some of the other issues. Your testimony states that the O&C Act requires timberlands to be managed for sustained timber production.

How do you reconcile that mandate with the mandate under FLPMA?

Mr. STEPANEK. It is somewhat delicate to balance. We do not view our responsibilities in western Oregon as a mandate to cut everything.

Mr. VENTO. What is your rotation cycle, Mr. Vetterick?

Mr. VETTERICK. The normal rotation cycle would be 80 years.

Mr. VENTO. 80 years? And, the Forest Service has a rotation cycle of 80 years. How does that fit in with a minimal old growth forest cycle of 150 to 250 years, Mr. Stepanek?

Mr. VETTERICK. The 80 years is when the Douglas-fir in the Pacific Northwest begins to slow its rate of growth. So, in order to maximize—

Mr. VENTO. Well, I know, but if we are cutting at a point that is greater than production and we have a cycle that is 80 years, and we have a growth cycle for old growths that is a minimum of 150 to 250 years, I would suggest that there is a basic contradiction. Am I missing something?

Mr. VETTERICK. No, it is very permissible, sir, to carry some stands much further than their normal rotation age. The normal rotation age, as I understood your question, is 80. We are seriously considering in our next generation of planning to designate some lands to perhaps carry them longer than the 80-year rotation age in order to produce a structure in an older age class that will emulate the structure in old growth.

Mr. VENTO. My time has expired, but I think my point is a valid one. Especially in the sense that you are cutting at a level that is

greater than what your scientists tell you is sustainable in the Forest Service, and perhaps in the BLM, although we have not reconciled that.

Thank you, Mr. Chairman.

Mr. VOLKMER. We will now proceed to the gentleman from Washington, but I want to announce to the committee that following his questioning, we will recess for his vote over in the caucus, and then come back immediately and proceed with further questioning.

So, at this time, I will recognize the gentleman from Washington.

Mr. MORRISON. I thank the Chairman.

Chief Robertson, I would like to maybe see if we can make an imaginary column with two different headings in the time that I have with you when I return.

[Recess taken.]

Mr. VOLKMER. The subcommittee will resume the seating and the questioning. In the absence of the gentleman from Washington, as soon as he returns, we will go back to his questions. I will recognize the gentleman from Indiana at this time for 5 minutes.

Mr. JONTZ. Thank you very much, Mr. Chairman. I want to thank all of the panel for their testimony.

Chief, when the committee asked Dr. Franklin to answer some questions on Tuesday, I asked him whether there was substantial agreement in the definition, at least as far as the Douglas-fir is concerned on the definition of old growth that the environmental groups and the Forest Service was using, and he indicated that definitions were very, very close, and I asked him, further, did he anticipate when the Forest Service had a chance to complete the new inventory, using the new definition, whether the numbers, so far as the amount of old growth that the Forest Service believed existed—whether those numbers would be substantially the same as what the environmental groups say.

He also answered that question affirmatively. He said, "Yes." He thought the number would be closer to the 2.5 million compared to 6 million acres. Do you believe that is true?

Mr. ROBERTSON. Yes, I do.

Mr. JONTZ. Are you including the environmentalists in the industry, in the process of conducting the new inventory so that they will have confidence in the figures that you produce?

Mr. ROBERTSON. Yes.

Mr. JONTZ. How are you including them?

Mr. ROBERTSON. Well, we have a lot of involvement in developing the definition. We pilot-tested our inventory procedures, I believe on three national forests, the Siuslaw, the Willamette, and the Mount Hood. I cannot answer the question, Congressman, on exactly how we are involving them in the actual inventory, but I will respond for the record.

[The information follows:]

Question. Are you including the environmentalists in the industry, in the process of conducting the new inventory so that they will have confidence in the figures that you produce?

Response. In the process of developing the new inventory criteria, Deputy Regional Forester John Lowe has met with various interest groups, including the timber industry, environmental interests (including the Wildlife Society, Audobon Society), and staff from the Oregon congressional delegation. The dates of these meetings were: November 17, 1988; January 9, and August 22.

Mr. JONTZ. Do you believe they should be included in the process in such a way that they will have confidence in the final results?

Mr. ROBERTSON. Yes, especially since it involves pilot-testing these new definitions and how we are going to apply them on the ground during an inventory. That is very important.

Mr. JONTZ. I would personally be interested in hearing from you in the future as to how plans evolve to insure that the other interests—that all the interests are included in the inventory process.

Mr. ROBERTSON. Well, I will check into that, and get back and let you know how we are doing and to what extent.

Mr. JONTZ. Good.

Mr. SPIES, I was not present for your testimony, but I have read your statement, and I am very impressed with what you are doing, and my question to you is this: How quickly would we be able to incorporate the ideas that you call New Forestry into the forest-planning process?

Mr. SPIES. I do not feel qualified to say how quickly we could incorporate those into the forest-planning process. I do know that some of the things that are proposed could be incorporated fairly quickly without changes in standards and guidelines, as I understand it, particularly changes at the stand level in terms of leaving trees, large trees, snags to provide structural diversity from stands, based on work that we have done on the Blue River Ranger District of the Willamette National Forest.

In that case, we were able to do some simulations with the forest that suggested that changes in cutting patterns could be implemented through aggregation of cutting units to minimize fragmentation and still fall within the dispersion guidelines that are mandated for forests.

Mr. JONTZ. Chief Robertson, would you care to comment on how these new forestry ideas are being and should be incorporated into the planning process?

Mr. ROBERTSON. Yes. Some of them we can do right away and some we are already doing, like leaving snags. I think, for example, leaving some of the trees in areas where there is harvesting, as is being proposed in the new forestry, those kinds of things we can do fairly quickly.

What we cannot do quickly is this landscape ecological approach where you look at large areas, and try to design the mosaic of vegetation and ecological factors or values scattered throughout large areas of maybe 50,000 or 100,000 acres. Now, that is a going to take a lot of time.

Mr. JONTZ. But, you will do that?

Mr. ROBERTSON. Well, what we have proposed to do is pilot-test it on some areas. But, you have to realize this is significant change. Right now, we have small clearcuts by policy, by law. We make small clearcuts and scatter them around because conventional wisdom 10 years ago was that clearcuts do not look good, so make them small and hide them around and do not have big clearcuts. Under the landscape approach, we would have to make larger clear-cuts, and that is a major change in how we manage the forest.

It is going to take some time to work through that.

Mr. JONTZ. I appreciate your answer. My time has expired.

Mr. VOLKMER. The gentleman from Washington?

Mr. MORRISON. Thank you, Mr. Chairman.

Chief, let us try again. Two columns; long term, another one short term. I think a lot of the things you have discussed here are long term, and those of us from the Northwest are extremely concerned about what we can do immediately to make sure that people are at work as we work out this balanced approach to our natural resource base.

Long term, I presume, redefinition and inventory even though you are going to speed some of those things up do not really help us get people back to work right now, and management plans to take into consideration, critters like the spotted owl also have to be, I suppose, long term.

Let us concentrate for a few minutes on the short-term, injunctive relief. We need relief from injunctions, and what are you doing right now that can help influence the Federal courts that have our industry totally tied up and still not do violence with what you believe must be a part of the long-term answer?

Mr. ROBERTSON. Well, what we are doing now, we have to go back to the judge around the first of July, I believe, and we are looking, with the Fish and Wildlife Service, at our timber sale program in fiscal year 1989, and how that would affect spotted owl habitat and the spotted owls. We hope to go back to the judge, soon, and tell him what we propose to do over the short run, fiscal year 1989 as well as 1990, in terms of modifying our timber sale program to provide interim protective measures for the spotted owl.

We are trying to work that out right now, and we are working with the Fish and Wildlife Service on three or four national forests, now, to see if we can get something worked out.

What we are really doing is starting with the Forest Service's spotted owl management plan, and seeing if that is adequate or there are some adjustments that we need to make in it for additional interim protective measures while the Fish and Wildlife Service goes through the 18-month to 2-year period of time to decide whether the owl should be listed.

But, that is a crucial point, whether we can go back to the judge with something that is satisfactory to him on interim protective measures that permit some kind of a reasonable timber sale program in 1989-90.

Mr. MORRISON. We understand that the owl will be listed tomorrow, so your plans along these lines are going to be absolutely essential.

Are you able to shift any resources so that you can concentrate on sales in areas that would not be appealed as part of a short-term solution?

Mr. ROBERTSON. Yes, there is a limited amount that we can do, and we are taking advantage of that to the maximum extent we can. But, I would like to point out that has limited possibilities right now. We have a 5-year timber sale program in the pipeline at any one time, and we are looking at second growth or nonspotted owl habitat sales that have been planned over the next 2 or 3 or 4 years, and we are trying to pick those up and bring them back to

fiscal year 1989-90 so that we can get through this period of uncertainty as to whether the owl will be listed.

Mr. LEONARD. Mr. Morrison.

Mr. MORRISON. Yes, sir.

Mr. LEONARD. Our best estimate of our ability to bring on second-growth timber through thinning sales suggests that we can replace maybe 10 to 15 percent of the volume that is currently under injunction.

So, it is not a major capability to off-set the impact of that injunction.

Mr. MORRISON. Is there anything else on the short-term list you can share with us, or are we looking, then, to relief from injunctions as providing, then, 90 percent if, in fact, the industry is not going to be dramatically impacted.

Mr. LEONARD. We simply must come up with a system working with Fish and Wildlife Service to get agreement on releasing a substantial portion of those 85 sales. We are optimistic we can do that, but until we work our way through some individual forests and look at what the agreement is after we have looked at the sale program, we will not be sure what those numbers are.

Mr. MORRISON. One last question. My time is up.

We have heard testimony, yesterday, that might lead us to believe that the Forest Service was, perhaps, a little uncertain as to how you were going to deal with the spotted owl you selected as an indicator species back in the late 1970's. We heard about SOMA's that kept being moved.

My question is in this form. Are you under tremendous pressure to try to blend some things Congress forces on you in the form of management procedures with something else we also force on you from both the congressional administrative level, and that is mandated cuts? Are you in an impossible situation, from a management point of view, between those two pressures?

Mr. ROBERTSON. I would not say we are in an impossible situation, but we are in a difficult situation trying to protect as many of the spotted owl habitat areas as we can under our spotted owl plan, and at the same time meet all of the other constraints that we jointly—the Congress and us—have decided about how to manage these forests in terms of size of clearcut, the dispersion of clearcuts, placing clearcuts against each other. And we have some districts and forests that are really having difficulty in finding places to put timber sales and still maintain as much spotted owl habitat as we reasonably can to honor our spotted owl management plan.

If we have to provide additional protection, that is going to make the program much more complicated to the point that you just cannot do it.

Mr. LEONARD. I would like to add that it really goes back to the question that Mr. Vento asked. You cannot produce substantial quantities of timber off the national forests and maintain all the stands as old growth. You cannot have it both ways.

So, what you need to do is manage some stands in a preservation mode to maintain old growth. We think it is possible, based on the work that Dr. Spies and Dr. Franklin have done, to manage some stands to maintain old-growth characteristics, and then some stands should be managed for maximum quantity production.

The question is the balance. How much of the forest do you manage in the preservation mode? How much do you manage under the new forestry concept, and how much do you manage with emphasis on commodity production? Today, less than 40 percent of the commercial timber lands in the Pacific Northwest are being planned for intensive commodity production. About 20 percent of our commercial forest land in the Pacific Northwest is being managed on extended rotations, not on the 80 years that was cited earlier, but on 200 to 250 years.

Of course, there are very substantial portions of the area in the Pacific Northwest that have been set aside as wilderness, wild and scenic areas, roadless areas, and spotted owl habitat areas where we are managing in a preservation mode.

The question is the balance. How much can you do of each and still get all the values you want, including the wood that the American people need.

Mr. MORRISON. That is what we have tried to do. We have tried to maintain that balance, and I think in doing so, we have muddled the water rather significantly.

Thank you, Mr. Chairman.

Mr. VOLKMER. I will now recognize the gentleman from Oregon, Mr. Smith.

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman. A quick follow-up to Mr. Morrison's question, is there any doubt in your mind that if you reach an agreement with Judge Dwyer, or you offered your program to Judge Dwyer and he accepted it, is there any reason to believe that that decision would not be appealed to the ninth circuit?

Mr. ROBERTSON. I would suspect that it is going to the ninth circuit either way.

Mr. R. SMITH of Oregon. I agree with you totally, and that question, then, may take us into Christmas, as far as a decision, and that is what troubles me about this whole program, that we may be tied up in the courts, here, and the courts, again, determining the future for the Pacific Northwest, that is a great threat to our joint efforts to try to find an answer.

Let me quickly get to this question, again, because as I listened to Mr. Vento, I thought I heard the implication that you are cutting more than you can sustain in growth, and I would like a clarification of that. You are cutting more, of course, than the 4.35, but I understand that a lot of that is buy-back timber, and we are running out of buy-back timber, therefore your cutting more than normal because that is a surplus.

Are you cutting more than is sustainable in growth, Mr. Leonard?

Mr. LEONARD. Mr. Smith, in the last decade, actual harvest levels of merchantable timber in the Pacific Northwest have—actual harvest—averaged 4 billion board feet per year. Our draft forest management plans for the Pacific Northwest, which reflect our current understanding of what is required to meet biological diversity and whatnot, recognizing that we are still debating over the spotted owl, provide for harvesting a net merchantable amount of 4 billion board feet per year.

So, if those plans had gone into effect in 1980, we could have had the exact same harvest levels and the exact same sale program that is proposed today. It needs to be understood that when we set the allowable sale quantity for a forest, we set it on a decadal basis with the expectation that the sale program or actual harvest programs will vary from year to year.

Mr. R. SMITH of Oregon. You are looking at an average of 10 years. You are not looking at 1 year. It is not fair to compare one year against the next.

Mr. LEONARD. The last 2 or 3 years have been good market years, so harvest levels have been—

Mr. R. SMITH of Oregon. Sales.

Mr. LEONARD. Sale levels have been fairly stable. Harvest levels have been substantially above the sales level, and it is true that we could not sustain these harvest levels at the current level forever, but given what happened in the early part of the decade, the harvest levels currently are well within the sustained yield capacity if we were operating under the new plans.

Mr. R. SMITH of Oregon. Isn't it true that somebody else—historically, not today—buy for the pipeline for 4 or 5 years. Then, they may harvest a higher amount to 1 year than the next?

Mr. LEONARD. That is right. The actual removal of timber from a sale area depends on the market. When the market is down, we harvest less than average. When the market is better, we harvest more than average.

Again, for the last decade, average harvest on the national forests of the Pacific Northwest have been 4 billion board feet of net merchantable timber, which is what the allowable sale quantity is based on, and we are coming out with new plans.

Mr. R. SMITH of Oregon. Mr. Vetterick, is the Bureau of Land Management selling more than you can sustain in growth?

Mr. VETTERICK. No, sir. The amount that is sold is based on the land allocations that we made in our 1980's decadal plan. It is based on an allowable cut model that runs at forest profile out for 40 decades, and that model shows us that we are on a sustainable basis in terms of our allowable sale quantity.

We also experience buy-out timber coming back to us that had already been removed from the books once and were reoffered in lieu of some intensive management. We are, obviously, right now because of the injunction, selling less than our allowable sale quantity. So, I would say that we are definitely not selling more than we are sustaining for our sustained harvest.

Mr. R. SMITH of Oregon. One quick question, Mr. Robertson. In your opinion, is the scientific data that you have gathered so far, about the spotted owl, sufficient, in your opinion, to shut down one-half of the harvest level of timber in region 6 between northern California, Oregon, and Washington?

Mr. ROBERTSON. No.

Mr. SPIES. I want to get into that with you a little later.

Thank you.

Mr. VOLKMER. The Chair will now recognize the other gentleman from Oregon.

Mr. DEFazio. Thank you, Mr. Chairman.

Chief, you spoke with great passion about the jobs and the suffering in the Pacific Northwest, and I guess I have a few questions and concerns about the Forest Service actions in this matter.

It seems to me that—I do not know where the problem lies, whether it is in the Forest Service or the administration or where—that this has not been a priority in terms of working toward some solutions, and I will give some examples.

The injunction—your testimony would have us understand that the injunction is not warranted. You have the SCIS and that, but the fact is, to the best of my knowledge, the Forest Service has yet to appeal the injunction. If the environmentalists have gone to court and lost the injunction, they would have been in San Francisco the next morning at 9 a.m. asking for an injunction. This is 4 months ago. The Forest Service has yet to appeal that injunction to the best of my knowledge. Yet, you say it is not warranted.

What is the problem here? What is the dichotomy? Why have you not appealed the injunction?

Mr. ROBERTSON. Well, there are some legal complications with that, but—

Mr. DEFAZIO. Legal complications? Can you not get authority from the administration to appeal? Is that the legal complication?

Mr. ROBERTSON. No, we could do that, but the way the injunction is worded, we felt obligated to go back with some kind of a proposal on how we would protect the spotted owl in the interim period of time.

One complication is that the judge has never charged us with any illegalities. He just suspended the sales and never quoted a law that we are violating. We are certainly not violating the Threatened and Endangered Species Act because it, very specifically, says that you do not shut down things while you are going through the listing process. So, that law—as I understand it—does not come into play.

The judge had some qualms about how this all ties into exports and other things.

Mr. DEFAZIO. Right—I understand this, but my point is a normal legal strategy is you go along two tracks. One would be that you appeal the injunction because you feel it is not warranted—what you are saying—and, on the other hand, you attempt to accommodate the court by undertaking activities that the court has directed you to do. But, if a higher court questions the wisdom of that judge and overturns the injunction, you are better off.

It just seems to me that I know that the environmental groups would certainly be willing to pursue a two-track strategy. Had they lost the injunction, they would have been willing to negotiate for some reduced sale level at the same time they were appealing and asking for another injunction.

So, I am puzzled that you are not taking all the options, there, and I would suggest I question the legal strategy of the Federal Government, in this case, and would go on to ask questions about alternate sales.

Mr. ROBERTSON. Could I just respond with one more comment? The Fish and Wildlife Service going through this listing process is what complicated things. We thought we had an excellent spotted owl management plan. Personally, I still think it is a very good

plan, but the Fish and Wildlife Service is going through a separate analysis to try to decide whether the spotted owl is threatened. If they conclude that, in fact, it is threatened, then their opinion will see our plan as not being good enough.

I am disappointed the Fish and Wildlife Service did not use our plan in coming to their conclusion that the owl should be proposed for listing as being threatened. But, nevertheless, they did, and now we are going back and looking at the spotted owl management plan that the Forest Service prepared to see if they believe that it is adequate in the interim.

But, trying to juggle both of these at the same time with two different agencies that could come to two different conclusions really complicates this matter.

Mr. DEFazio. Right, I understand. Let us go to alternatives. I assume that you had staff here on Tuesday to hear the testimony that was presented. We had wide-ranging disparities in the amount of calculations of old growth out there. What we seem to come to is a final conclusion that we need a common definition, yet, when I read your generic definition, it does not seem to me that we have yet come to that definition with which we can go forward with the inventory and then I will go back to the question—since my time is up, I will go to this in the next round.

Mr. VOLKMER. The gentleman from Idaho.

Mr. CRAIG. Thank you very much, Mr. Chairman. It is good to have you before the committees. I wish it were another issue for a different day, and we had this resolved, but we do not.

As I said in the hearing here the day before yesterday, we have a public policy that this Congress, in my opinion, cannot pass "Go" on it at this moment. I do not know that there is a compromise. There is certainly a lack of direction that has to be resolved.

In your testimony, you state that 50 percent of the old growth in region 6 is in wilderness or other designations that prevent timber harvest. Could you give us a breakdown of the acreage in each of these designations? Do you have that or can you make that available to the committee?

Mr. ROBERTSON. We will be happy to make that available.
[The information follows:]

Region 6
(Oregon and Washington)*

<u>Oregon</u>	<u>Washington</u>	<u>Total</u>
<u>Wilderness</u>		
2,093,484	2,585,431	4,678,915
<u>National Scenic-Research Area</u>		
(Cascade Head)		
9,670		9,670
<u>Wild and Scenic Rivers</u>		
54,058	34,650	88,708
<u>National Recreation Areas</u>		
431,725	8,473	440,198
<u>National Monuments</u>		
(Mt. St. Helens)		
	109,578	109,578
TOTAL		<u>5,327,069</u>

* Information from "Land Areas of the National Forest System", Sept. 30, 1988

Mr. CRAIG. Do you know how today's figures of 50 percent compare with 10 years ago?

Mr. ROBERTSON. Well, we have been harvesting at about 60,000 to 70,000 acres a year, so I think you could maybe multiply that by 10, so maybe 500,000 to 700,000 acres.

Mr. CRAIG. And, all of that was old growth?

Mr. LEONARD. All of that is old trees. Not all of it meets the ecological definition of old growth that we have been talking about here, this morning.

I might also point out that over that period of time, there have been substantial additions of timber to the wilderness system of the scenic river systems, and others, so there have been trade-offs on both sides. While we have been cutting old growth, additional old growth has been put in to protect the categories, as well.

Mr. CRAIG. I see. Does the agency have an estimate of how much old-growth timber is lost annually through the normal courses of the environment, mortality, and fire? Have you looked at that?

Mr. LEONARD. There are substantial losses of old trees, but the very nature of old growth in the sense of the ecological definitions that we are dealing with, here, is the loss of trees through the normal mortality from scattered insect attacks, and whatnot.

Mr. CRAIG. So, at least from the mortality side, you cannot compute that because that is the nature of the beast.

Mr. LEONARD. That is the nature of the beast, and in fact, the tree that dies is a snag, then becomes a downed log, is part of the structure of the old growth, itself.

Mr. CRAIG. With the fire factor being separate or different, and considerable fires in the Northwest over the last several years, have you got a figure there as to old-growth logs?

Mr. LEONARD. Again, not based on the ecological definition, but certainly in the Silver fire and several other fires we burned a lot of those old trees, and there were components that would have met the old-growth definition.

Mr. CRAIG. In the new definition or at least that which you are working to provide at this time, I guess I am a little frustrated by one of your statements or one of your conclusions. In the first couple of sentences, paragraph 3, where you say, "Goals for providing old-growth values are not compatible with timber harvesting, land would be excluded from the timber basin."

Is it possible to have old-growth values that are compatible with timber harvesting, and therefore, maintain old growth while you are harvesting timber in it? I think that what you are suggesting, now?

Mr. LEONARD. Let me ask Dr. Spies to respond to that.

Mr. SPIES. I think there are two things that we need to think about on this. One is that we know that we can silviculturally manipulate stands so that old components of old growth can be included in it, large trees and snags. Scientifically, we are not prepared to say that we can silviculturally manipulate stands to accelerate the development of entire old-growth ecosystems.

Now, there is a distinction there that needs to be made between old growth that develops following a human disturbance. It is entirely possible—

Mr. CRAIG. I think, Doctor, that is where I am coming from, and that is what frustrates me with this kind of definition. Once you

enter, once the human enters for purposes of timber harvest, we know what kind of entry that is, and by definition don't we change the definition at that point.

Mr. SPIES. Yes, to the extent that if you went into a stand that met the old-growth definition and took out trees and snags to the extent that it no longer met the old-growth definition that we are working on, then it would not obviously be old growth, according to that definition.

Mr. CRAIG. Are you arguing that you can hold the definition and still enter the premise?

Mr. SPIES. At this point, I would say we do not know that for sure. I think we enter stands and manipulate them, removing some trees, and presumably, if it still met the old-growth definition, then it would be old growth. There is nothing to say in the old-growth definition that we have that you cannot have some human activity in it.

However, at the same time, scientifically, we feel we do not know enough about old-growth ecosystems to really have a lot of confidence in doing that in a very large scale. I think we feel most confident in saying that we can enter stands, retain some old-growth characteristics in those stands, and manipulate them to provide structural diversity which may go a long way toward maintaining the biological diversity of values that we have for our landscapes.

I would hesitate to see us make the statement that we can really go into old-growth forests, do a lot of manipulation and still call them old-growth ecosystems, although technically, there is nothing that prevents us from doing that, according to the definition that we put together.

Mr. CRAIG. Thank you, gentlemen, thank you, Mr. Chairman.

Mr. VOLKMER. I have some more questions. The definition, Dale, that you are all working on in this piece, when you do the inventory, as a result of that, will that include wilderness areas within it?

Mr. ROBERTSON. Yes.

Mr. VOLKMER. The reason I asked that is, because the day before yesterday, when we had our hearing, we had testimony to the fact that there is some approximately 600,000 acres in this area of qualified old growth areas within the wilderness. You would not be able at this time to verify or not verify that?

Mr. ROBERTSON. Yes, we will verify that in the inventory.

Mr. VOLKMER. Will you be able to verify whether or not there is that much more?

Mr. Stepanek—either you or one of the others with you—are you in the process—that BLM is in the process, also, of doing inventory, or will be doing an inventory of the old growth as by the definitions being worked out? Yes or no?

Mr. STEPANEK. Yes, but we did just complete the 1988 inventory based on the 200-plus, and those were the numbers in my testimony.

Mr. VOLKMER. Yes, but that is not based on the definition that is being developed?

Mr. STEPANEK. That is correct.

Mr. VOLKMER. Will you be doing a new inventory based on that definition? That is what I am asking.

Mr. STEPANEK. Well, the potential is there to make the adjustment based on a new definition. I cannot tell you definitely, at this point, without further consultation with the Forest Service that we will.

Mr. VOLKMER. I think if you do not and the Forest Service does, we still do not have a full picture. As far as I am concerned, we need a full picture to analyze this whole thing and not just half of a picture or a third of a picture or two-thirds.

Mr. STEPANEK. I am sure you are right. What I am saying is we just have not had that discussion, yet.

Mr. VOLKMER. All right. Now, we also have had testimony the day before yesterday, there really, basically, is no old growth that qualifies for this ecological old growth in State-owned lands or private lands any longer in this area.

Anyone have anything they want to say about that?

Mr. ROBERTSON. I do not think that is quite right, especially in the State of Washington.

Mr. VOLKMER. That would possible qualify under the new definition?

Mr. ROBERTSON. I think so. Again, it depends on your definition, but our numbers show that there are about 1.3 million acres of old growth in other ownerships in Oregon and Washington. That includes the national parks, the States, and private ownership.

Mr. VOLKMER. How are we going to be able to verify that, Dr. Spies?

Mr. SPIES. If I may just make a point of clarification. We are talking about several different definitions, here. The diagram that I handed out may help to clarify the issue—I do not know if you have a copy of it or not.

Mr. VOLKMER. If I do not, I would like to have a copy.

Mr. SPIES. If you look at the lower diagram, it is basically an idealized sequence of how forests change over time, and what the structure looks like. You see that the Forest Service inventory went into the forest plans using the best information they had available at the time, basically included large saw-timber and what is called ecological old growth.

So, it cast a broader net than the current ecological definition that we are using. That may explain why you get higher figures for old-growth amounts on State and private lands.

Generally speaking, our feeling is that the amount of old growth that meets the ecological definition on State and private lands is relatively small. It is, definitely, more in Washington on DNR lands than it is in Oregon. I do not believe there is much in Oregon, at all, and Weyerhaeuser, probably, has very little that meets the ecological definition.

Now, if you go to the broader concept of old growth that includes larger trees, and some of the early characteristics of old growth, then, in fact, the numbers may be higher. But, the whole issue of a definition is one of success of approximations. The first cast was a crude one. The interim inventory that is coming up will be somewhat better, presumably the one that is coming up for 1993 will be the best.

Mr. VOLKMER. My time has expired.

The gentleman from Minnesota.

Mr. VENTO. Well, I think that what Mr. Spies is saying is that Weyerhaeuser may not have any old growth. Is that right?

Mr. SPIES. That meets this ecological definition.

Mr. VENTO. There are some areas of uncertainty. I realize that most of us are operating only with the best information available.

Mr. Leonard, I appreciate your clarification of the issue of what is up for sale and what actually gets cut. I do not know when you start the 10-year period. If you started in 1980, you had a depressed wood market. When you put things up for sale, eventually you have to rely on that being sold, do you not?

Mr. LEONARD. That is correct. Our control is the amount we sell. The issue really is that 10 billion board feet of timber that we sold came back to us, and it has been resold. So, you cannot double-count it.

Mr. VENTO. Well, I do not want to, but that is the policy path, and that is what the Appropriations Committee is talking about. They say you have to sell at least 11 billion board feet. That is driven by a political, not a professional-type of decision. Is that not correct?

Mr. LEONARD. Well, it is certainly a political decision on an annual basis.

Mr. VENTO. Half of that has to come and half of it does come from region 6, Oregon and Washington. Is that correct?

Mr. LEONARD. About 40 percent.

Mr. VENTO. 5.3 versus 11. If you are selling 5.3 out of 11, that sounds like 40 percent. The point is a lot of it has to come from that area.

Mr. LEONARD. A lot of it comes from that area.

Mr. VENTO. Now, your professional scientists in the Forest Service are telling us that you can only sustain under your land management plans 3.9 billion board feet.

Mr. LEONARD. 3.9 or 4.0.

Mr. VENTO. OK, but then you said you had some bits and pieces you can add once in a while.

So, that is what we are doing. Now, you can take the numbers and say, "We had a depressed market, and we had this or that." But, if you are going to be putting it out for sale, if that is the policy path that Congress is pushing and if that is the policy path that you are pushing, we have to assume that eventually, if it is sold, it is going to be cut.

Now, it might come back because of a depressed market or because a certain number of people go bankrupt, but we do not anticipate that happening.

Mr. LEONARD. Again, the question is how much do you sell per decade, because that is the control, and the volume that was sold in the last 10 years is less than the allowable sale quantity—

Mr. VENTO. No, not sold, but actually cut, you mean?

Mr. LEONARD. Cut is what depletes inventory.

Mr. VENTO. But, I think I got your cut and your sales mixed up for you there. I am sorry if I did that. But, I think you were trying to mix up my cuts and my sales.

Mr. LEONARD. It is not a simple thing when we deal with net versus gross inventory.

Mr. VENTO. What I am trying to point out is that beyond the spotted owl, there are some problems here.

Mr. LEONARD. But, we are very confident that we are operating within the sustained yield capacity of both the existing plans and the forest plans.

Mr. VENTO. Well, I would feel a lot more comfortable if the plans were in effect.

Dr. Spies, does your research indicate whether or not the national forests in the Northwest can sustain the current level of timber sales and harvests to meet the provisions of law—11 billion board feet or the 5.3 billion?

Mr. SPIES. We have not conducted—

Mr. VENTO. What does your research indicate?

Mr. SPIES. We have not conducted any detailed—at least our shop has not conducted detailed analysis to specifically address what is in the forest plans or what the current levels are. However, some indirect evidence, based on what we are looking at in new forestry with the concept of retaining some structure in stands, maybe manipulating landscape patterns would suggest that—

Mr. VENTO. That is an experiment that is encouraging. I think it ought to be encouraged, but I also recognize the limitations of it.

Have you done any work with the greenhouse effect, Dr. Spies. What are your views on that?

Mr. SPIES. Our colleagues at Oregon State, as part of our research team, have recently done some analysis on the issue of the effect of harvesting of old growth on the return of carbon to the atmosphere in the form of CO_2 . There is some confusion on the issue—

Mr. VENTO. What is your impression?

Mr. SPIES. My impression is that the harvesting of old-growth returns substantial quantities of CO_2 to the atmosphere, and that the growth of young stands, although they do take up carbon at a more rapid rate than old growth does, are not—basically, the harvesting of old growth is returning more CO_2 than we think.

Mr. VENTO. Mr. Leonard, you commented about the fact that you would like to work toward the preservation of these areas of old growth. What are you doing in these areas? Are you working with those groups to resolve some of these problems?

Mr. LEONARD. Well, certainly, that is what the whole forest planning process is designed to do, to bring public comment, public discussion of what is, in fact, the appropriate balance.

But, unfortunately, it has resulted—

Mr. VENTO. Unfortunately, it has been sent back to be redone, and it is 8 years late in terms of being put into effect because of some political decisions.

Mr. LEONARD. We would very much like to have the forest plans in place in the Northwest.

Mr. VENTO. I would, too.

Mr. VOLKMER. The Chair will recognize the gentleman from Washington.

Mr. MORRISON. Thank you, Mr. Chairman.

Dr. Spies, I am a little confused by your last statement on the greenhouse effect. You have included in your testimony a statement, "Older national forests use most of their productivity in res-

piration rather than accumulation of new wood." That respiration is the return of carbon to the atmosphere, and that contributes to the greenhouse effect. But, you said the harvest of old growth is a contributor to greenhouse gases.

Mr. SPIES. Yes.

Mr. MORRISON. Is that an assumption that we are going to slash, burn, push that old snag over, and it is going to be immediately turned into carbon into the air?

Mr. SPIES. The analysis that our folks did at OSU was based on current practices, and what they find is, that you need to consider the storage question as much as you do the uptake question. If you consider these two pictures here, a full picture representing the amount of carbon stored in an old-growth forest, about half of that amount is the carbon that would be stored in a young forest.

When you harvest that old growth forest, some of that material goes to structural timber, which is fairly stable over time. But, about 55 percent of it is lost to sawdust, or is used in paper products, or is used in other fairly labile organic materials that over a fairly short period of time, return substantial quantities of carbon to the atmosphere.

We estimate that over 100 English tons of carbon per acre are returned to the atmosphere based on the harvesting of old growth. Young stands do take up carbon more rapidly. If I were filling this pitcher up, if it was old growth, it would be in a net equilibrium. I would be pouring in about as much as I was losing. If I were working in a young stand, you would see it filling up, but it still would not equal the total storage. Then the act of harvesting itself converts a lot of material on the site to carbon-dioxide.

Mr. MORRISON. We have been looking at leaving snags, leaving not burning slash, and I often want to ask the question that we have been spending \$500 an acre to burn slash and maybe doing the wrong thing is part of our management scenario for a number of years.

My presumption is some of the new scenarios you have projected, using your diagram, would leave a lot of that carbon material in place, and we might end up with our forests, in the long run, actually absorbing more greenhouse gases than we return to the atmosphere.

Mr. SPIES. That is correct.

Mr. MORRISON. We could use the forest, including old growth, more effectively to help in the battle against global warming.

Mr. SPIES. If you consider that the forest has carbon tied up in live trees and—don't forget—the dead component, then that is true.

Mr. MORRISON. We, also, around here, since we use a lot of paper, would like to say that we are not sure that all of that immediately returns back to the form of carbon. We seem to store a lot of it in the congressional process.

Thank you, Mr. Chairman.

Mr. VOLKMER. The gentleman from Indiana?

Mr. JONTZ. Thank you, Mr. Chairman.

Chief Robertson, my last opportunity to ask you a couple of questions, you indicated that when the inventory is completed using the new definition of ecological old growth that the numbers are going

to end up pretty close to what the environmentalists are now talking about or in that general vicinity. Now, your old inventory, based on different definition, showed 6.2 million acres of old growth. The environmentalists are saying 2.4 million. Let us say that it ends up a little more than that—3 million acres. That leaves 3 million acres at a minimum that we were calling old growth, under the previous definition, that is no longer going to be called old growth.

Now, why isn't that 3 million acres something that we can be identifying at the present time so that we can use that acreage to meet the timber needs through there without getting into the other 2 or 3 million acres that are ecological old growth?

Mr. ROBERTSON. I think that is an excellent suggestion, if we could identify those 3 million acres and if everybody would agree that we could proceed with a timber program on those 3 million acres, I think that is an excellent approach to this.

We are planning to have an inventory, based on satellite photography, by September 30, 1990. It will not be precise, because it will only be what we can see from the aerial photography. But, we will be able to, I think, identify a lot more accurately than any figures to date just where those 3 million or 4 million acres are.

Mr. JONTZ. But, that is a substantial quantity. I would think that maybe the news story coming out of these hearings would be good news from the Forest Service, 3 million acres of land that we did not think was going to be available, or at least was going to be in contention, is not. The real problem is finding where those 3 million acres are, which everybody seems to agree about in definition, or at least we are very close to it.

So, why can't we get the environmentalists and your people out on the ground using that definition and go through forest by forest and find where those acres are?

Mr. ROBERTSON. In fact, I think that would be good news. If the environmentalists come up with 3 million and we have 6 million, and if we took their 3 million and released the other 3, then we could proceed in the interim until we have the inventory done. That may be something that we could work out.

Mr. JONTZ. Well, can't we do that?

Mr. LEONARD. Mr. Jontz, maybe I ought to throw just a few thoughts in there.

Mr. JONTZ. There might be some complications to this, it seems such an obvious answer.

Mr. LEONARD. No. 1, that 3 million acres that you and the Chief have agreed to is still spotted owl habitat.

Mr. ROBERTSON. That is part of the agreement that he and I just reached.

Mr. LEONARD. And substantial parts of it are in roadless areas that people do not want us to enter. So, simply agreeing—and that is why this whole issue gets so complex—that from the standpoint of protecting ecological old growth, there are 3 million acres that are really not an issue, does not solve all the other kinds of issues. There are other reasons why people do not want us to cut some trees, and they are the fact that the trees are in roadless areas, the fact that there is spotted owl habitat or pileated woodpecker habi-

tat, or martin habitat, or fisher habitat. There are a lot of other reasons why people do not want to cut trees.

One of the really frustrating things in the forest planning process is that a group of people who are interested in one of those attributes can sit down and work out an agreement. But, then you have to go over and sit down with the next group that is interested in another attribute, the agreement does not match. When you start layering other issues like roadless areas, whether it should be in wilderness or developed, spotted owl habitat, and all these various other things, then you end up that the level of agreement, the areas that there is no disagreement on, become a lot less than that 3 million acres.

That is really the issue.

Mr. JONTZ. Thank you very much.

Mr. VOLKMER. Gentleman from Oregon.

Mr. R. SMITH of Oregon. Thank you, Mr. Chairman.

Let us go back at this another way. If 40 percent of the public lands are now in areas that are to be harvested or designated to be harvested, and you took out 3 million acres, Chief, in your hypothetical, what would that leave us—20 or 25 percent of all the forest lands available for harvest?

Mr. ROBERTSON. Well, we do not know where those 3 million acres are.

Mr. R. SMITH of Oregon. You have 12 million acres altogether, right? Let us go down from there; 40 percent of that is 4.8 million acres harvestable. If you take out 3 million, you are going to reduce the 40 percent substantially, I guess that is a fair analysis, right?

Mr. ROBERTSON. Well, I was not proposing to take out 3 million. I thought what we were trying to do was identify 3 million that are not controversial so that in the interim, while we get the definition worked out and the inventory completed, 3 million of it would be noncontroversial. That is what I was saying I think would be headlines if we could—

Mr. R. SMITH of Oregon. That is dreaming, is it not?

Mr. ROBERTSON. I thought, maybe, that was the proposal?

Mr. R. SMITH of Oregon. If you can, tell me how much timber is now tied up in administrative appeals on the Forest Service? Let us lump that with court litigation.

Mr. LEONARD. In looking at the 1989 sale program, currently we have about 2.5 billion board feet held up in the west side of Oregon and Washington under the court injunction. I cannot give you a precise figure, but I would guess there are another 200 to 300 million board feet held up elsewhere in the West.

Mr. R. SMITH of Oregon. Between northern California, Oregon, and Washington, let us say.

Mr. LEONARD. A little less than that in there, but in the total west, probably another 200 million feet.

Mr. R. SMITH of Oregon. And, the Bureau of Land Management, Mr. Vetterick?

Mr. VETTERICK. We are down counting the new injunction, the new spin on an old injunction, 365 million feet.

Mr. R. SMITH of Oregon. 365 of a quantity—

Mr. VETTERICK. A normal allowable sale is 1.176 billion.

Mr. R. SMITH of Oregon. And, your sale is 4.35, Mr. Leonard?

Mr. LEONARD. In Oregon and Washington, yes.

Mr. R. SMITH of Oregon. So, you are down about half.

Mr. LEONARD. A little better than half, actually.

Mr. R. SMITH of Oregon. A little better than half. Without some kind of injunctive relief or some kind of agreement, you will be in the same situation in 1990.

Mr. LEONARD. Unless we can get agreement with the Fish and Wildlife Service on a proposal that we can take to court, and then get the court's agreement, that is where it will be.

Mr. SMITH of Oregon. I just comment that that means, by the way, to Oregon, about 100,000 jobs, between California, Oregon, and Washington. That means the end of the economy in Oregon. That is what is means.

I asked you, Chief, about the scientific information regarding the owl and whether or not you thought that was sufficient to end about half of the harvest of timber in Oregon, Washington, and northern California. You said no. I want to expand that for 1 minute. In your opinion, how long, under your current studies, would it be before you would agree that the science was proper to make a decision?

Mr. ROBERTSON. Well, we have a research and development program on the spotted owl, which should go for another 4 to 5 years, and I would hope at the end of that 5 years, we would know enough to make a much better decision than we can now.

When I gave you that no, I guess—the Fish and Wildlife Service has to go through the listing process. It may take 18 months, 2 years—I do not know how long it will take—and what I feel strongly about is I do not think we ought to be penalizing the people of the Pacific Northwest by throwing people out of work unnecessarily, and closing down communities until the biological decision can be made in an appropriate way.

I should not be in the position of having to make that decision. But, I think I am in a position that I can express some thoughts that we should not inflict so much pain on the Pacific Northwest over the next 2 or 3 years until we can get the biology together to make a decision. I guess that is what I feel pretty strong about, that we should not inflict so much pain on people over a 2- or 3-year period of time until those decisions can be made and based on more information than we have today.

Mr. R. SMITH of Oregon. Thank you.

Mr. VOLKMER. The gentleman from Oregon.

Mr. DEFazio. Thank you, Mr. Chairman.

Chief, I am sorry if I expressed some frustration last time, but just let me come back to the point I was trying to make.

The Forest Service tells me that the work they have done is fine, that you are doing everything you can do, yet, in one case, you have been enjoined, and you have not appealed the injunction. It seems to me that if I felt I had done some work that was defensible, I would defend it.

Let us go beyond that. Our correspondence with you asked about thinning sales, and the answer came back, yes, there is up to 288 million board feet over and above the expected sale level available in thinning. It would cost \$6 million a year. You have gone on to say that you could offer, perhaps, 3.5 billion board feet outside the

terms of the injunction, yet—in response to Mr. Smith, I did not hear that—that is proposed for next year.

You are talking here about the fact that we have not done the out-year preparation, therefore it is difficult to bring forward any of the next 3-year sales, but we have heard testimony, well, we have spent 5 years preparing sales.

What I keep hearing is we are doing everything we can, yet it is not evidenced to me in the actions of the Forest Service. I cannot believe there are not any alternatives. Mr. Jontz pointed out something that came out of the testimony on Tuesday. We had Brock Evans from the Audubon Society say, "We could agree to a sale level in the mature timber if we go forward with the inventory."

Well, I do not see the inventory going forward. We have not even agreed on a definition. One-year ago, Leslie Coyne put in an amendment in the appropriations bill ordering an inventory, and here we are 1-year later, and we have not even determined the definition. That does not seem to me that we are moving forward with all this batch.

I guess my question, and I hear this persistently from the lower levels in the Forest Service, is we could do more, but we are not being encouraged by region. We could do more, but we are not being encouraged by the national office.

My question is, are you attempting to precipitate a crisis here just to continue operations as they have been in the hope that Congress can somehow fix this whole thing and bail you out, or are you doing everything humanly possible to alleviate the problems of the timber shortage while we work on a long-term solution? It has to be that the agency is doing everything it can. I just do not see that.

Why did I have to ask about thinning and get a response 2 months later? Why didn't the Forest Service offer that up? It is 288 million. That is not insignificant? It would cost \$6 million. I am willing to work for the \$6 million. Leslie Coyne will fight for this \$6 million. Bob will fight for the \$6 million. That does not solve the whole problem, but we will help you.

My question is what do you think? That Congress is just going to come in on a white horse? I mean, are you really honestly saying you are doing everything, here?

Mr. ROBERTSON. Well, it was my impression we were doing everything we could do. Now, if that does not jibe with reality out there, then we need to get people in line.

Mr. DEFazio. Right. The thing is are there constraints? If it would cost more money to bring sales forward, if it would cost more money to do this inventory so we can move forward with sales and mature timber in an interim basis while we get the long-term inventory done, if it costs more money?

We want to hear those things. We do not want to hear that OMB is manipulating this like they are manipulating you on the issue of log exports because you know darn well that if we opened up our Federal Forests, today, and we already have a timber shortage to Japanese bidding, that we will be worse off, yet the Forest Service is being forced to defend a policy that I do not think, in your heart, you could ever believe in, that is open the Federal forests to bidding by the Japanese as you talked a little bit earlier about the issue of the trade deficit.

You know that if we export whole logs to Japan like other colonies, that it is not going to help the trade deficit, it is going to make it worse in the long term.

The bottom line I am getting to, here, is I wish we could get, what I feel, are honest answers out of your office whether or not—I know—you have got political constraints, but that is just what I feel is going. I have to tell you truthfully, that is what I feel is going on. I cannot believe with all the people in your agency that you cannot bring forth some of these proposals when my staff and I are working 15 to 20 hours a day trying to come up with little ideas like thinning or alternate sales programs or looking at dispersion requirements or this or that. There are 3 of us, there are 10,000 of you.

Mr. VOLKMER. The gentleman from Indiana.

Mr. JONTZ. No questions.

Mr. VOLKMER. The gentleman from Washington.

Mr. McDERMOTT. I sit here, and I listen. Maybe I am simple minded or too concrete or something, but I keep thinking this is an issue about land and the use of land, and I would think that maps would be a simple way to begin thinking about land, yet, it is impossible to get from you a map that says where you think the old growth is. I have heard people sit right here, the two of you just now, say, "We know there is 6,000 acres—well, there is really 6 million acres, but we think 3 million acres, but I cannot really tell you where those acres are."

Now, if you cannot tell us where those acres are, I think you ought to be able to bring Forest Service maps, and I have driven up to your—I was in the Wenatchee Forest 2 weeks ago, and you can go in there and you can get a map, and I believe that if you wanted to, you can bring us a map marked out with where the old growth is. Otherwise, how do you know whether it is 6 million acres? How can you talk about 6 million acres and not be able to bring a map up here and lay it out and say, "This is an area of old growth, and this is an area of old growth."

How can you count 6 million acres if you cannot bring a map?

Mr. LEONARD. The maps exist. The problem is that there are maps that show areas by age class, by size of timber, and by—

Mr. McDERMOTT. By your definition of old growth, do you have a map with your definition of old growth laid out on a piece of paper? Can you send that to my office?

Mr. LEONARD. I think we can do that for most of the forest in region 6, yes.

Mr. McDERMOTT. Can you do that?

Mr. ROBERTSON. He is the same as me.

Mr. McDERMOTT. How about the other guy?

Mr. STEPANEK. Certainly we can. We have the 1988 inventory that shows those areas of 200 years plus on the basis of that definition.

Mr. McDERMOTT. On your definition?

Mr. STEPANEK. That is right.

Mr. McDERMOTT. Can you show the difference between what 6 million and 3 million is—the two of you?

Mr. LEONARD. No, we cannot, and that is because the characteristics that define old growth are not visible on aerial photos. That

can only be done by visiting individual stands and looking at the dead and down material that is there, and that is the process that we have to go through in order to get good data.

Now, we all go out and look at a stand that shows certain characteristics on an aerial photo, and we can go out, and if all the parties went out to the same stand, we would all agree on what that stand is. But, if each of us look at that aerial photo, we are going to make different assumptions about what it is. That is the problem that each of us is looking at a sample of the structure, not the entire structure.

Mr. McDERMOTT. Are you saying——

Mr. LEONARD. We do have an agreed definition in the Douglas-fir region of the Pacific Northwest.

Again, if we all walked out into the stand, we would agree whether the stand characteristics met that definition. When we try to use our sampling techniques, we do not get there. So, what we are going to have to do in this detailed inventory, is stratify the forest on aerial photos or satellite data, and then go into the stands that we identify and inventory, through direct observations, those characteristics that we cannot see on the photos.

Everybody is making those approximations. Some people are reducing those to maps.

Mr. McDERMOTT. Let me just go one step further. A lot of the environmentalists have gone through and walked through the stands and have actually brought maps. On Tuesday, we saw maps of various—what they called—old growth.

Are you willing to sit down with them and look at their maps and talk about which of those areas can be put up for sale?

Mr. LEONARD. We can certainly go through that exercise, yes. The problem is that if I sit down with one environmental group that is interested in only preservation of old growth and we get an agreement, I have no assurance that I am going to have an agreement with the next environmental group that is interested in the spotted owls, which habitat is different requirements, that we are going to get agreement from that group that we can go ahead.

So, the problem is that unless you can bring all the parties to the table, and that is what we try to do through the forest planning process, everybody ends up with a tremendous sense of frustration, because you get agreement with this group and then you move to the next one.

Somehow or another, we have to deal with all the attributes of these forests, and that is what the definition tries to do. Deal with all the attributes of the forest and go through a process where everybody agrees that we have an inventory that works.

Mr. McDERMOTT. I guess where we are really is that we are at the point where only one person agrees, and that is the judge. He is going to make all the decisions because you cannot sit down with the other people.

Thank you.

Mr. VOLKMER. The time of the gentleman has expired. Now, I will recognize the gentleman from Virginia. Before I do, I would like to announce that following his questions and completion of those questions, we will recess for the general vote we have on now.

Dale, do you have something that you have to go to? What about the BLM people? Can you stay for a little while longer, for one more round of questioning?

Mr. STEPANEK. Certainly.

Mr. VOLKMER. All right, then we will come back after we vote, and we will go one more round with this panel. We will then hear from Mr. Bosco, and then we will go to our second panel.

I recognize, now, the gentleman from Virginia.

Mr. OLIN. Thank you very much, Mr. Chairman.

Chief Robertson, I apologize for not being here for your oral testimony, although I have scanned through it, and I have had a report from my staff on some of the questions that were asked of you. I would like to get back into one with regard to what is the level of timbering going on in region 6, national forests? I was told that you were asked these questions before. The answers were not crisp and clear, maybe a little fuzzy, but I would like to try that out again, if I could.

In region 6, taken as a whole, could you tell me whether you are in the portion of the forest that is available for timbering? Are you harvesting, by timbering, more than the rate of regrowth of that portion of the forest?

Mr. ROBERTSON. Yes.

Mr. OLIN. You are?

Mr. ROBERTSON. Because our growth is keyed to the total area we are assuming is available for timber management, and that includes some roadless areas and other areas that we are not harvesting in. So the roaded areas are carrying the load for the whole timber base.

Mr. OLIN. So, you are managing on the basis, then, that on the average, for the whole forest, you are harvesting for the whole forest, including everything?

Mr. ROBERTSON. No.

Mr. OLIN. You are harvesting more than the regrowth rate?

Mr. ROBERTSON. In our forest plans, we identify the land base from which we will be managing for timber in the future, and we use that land base to determine the allowable sale quantity for timber sales.

Now, in the Pacific Northwest, some of that land base includes some roadless areas and other areas of old growth that we have been having difficulty getting into, even though it contributed toward the calculation of the allowable sale quantity.

Mr. OLIN. I know that, but if I am hearing you right, if you take out the portion that is in wilderness or some other management plan that does not include timbering, you, then, are timbering the remainder on an 80-year cycle, and that means that in all of the forest that you are saying is available for timbering, you are going to have relatively young trees. If you are timbering on an 80-cycle, the trees will be averaged at 40 years old after a short time, here.

Is that about right?

Mr. LEONARD. If I can interject, there, Mr. Olin, on those lands that are planned for timber production, about 80 percent of it on the west side in the Douglas-fir portion of the forest, they are being managed at about an 80-year rotation. Some of those stands will be cut shortly before that. Some will be cut shortly after that.

There is, in that same area, intermingled along travelways and whatnot, about 20 percent of that planned land base that will be managed on extended rotations, 200 to 250 years. Also intermingled with that area are areas that will not be cut, not because they are in wilderness but because they are on sites where other resource values suggest they should not be cut or they are on fragile soils, and whatnot.

So, in any area of the forest, you are going to have an intermingling—if you look at a 10,000 or 100,000 acre portion of the forest you are going to have some lands that are managed very intensively on 80-year rotations. You are going to have about 20 percent of that land base that is managed on extended rotations out to 250 years, and you are going to have some lands that will not be managed at all for timber production.

So, in any given area, you are not going to have a 40-acre average, even though if you take just the portion that is managed for timber, then it is true that the average acreage year of your stands will be 40 acres. When you look at the mosaic of the way those forests are being managed, and once you get up to a scale of about 10,000 acres, you are going to have a full range, including substantial amounts of old-growth timber set aside and spotted owl management areas and other areas that are reserved within the timber base.

Mr. OLIN. Then, you should not use the term that you are operating an 80-year cycle.

Mr. LEONARD. That is absolutely correct.

Mr. OLIN. Why do you use it?

Mr. LEONARD. It is correct to say that of the area that is being managed intensively for timber production, that portion of it is managed on an 80-year rotation, but the portion, on the average, of the national forests in Oregon that are managed for timber production is about 40 percent of the total forest area.

Mr. OLIN. Mr. Leonard, I want to talk to Mr. Robertson, if you do not mind.

I think, Chief, that you ought to get your story here cleared up and clear. Make it good and honest and don't generalize so darned much that you confuse everybody. You may have a fairly logical preharvesting plan out there. I do not know. You cannot tell by what you say.

But, if you are managing the forest the way it was intended in the law, you are not supposed to be harvesting more than the regeneration rate. You are supposed to be regenerating the forest so you will have a forest 100 years from now of the same general quality you have today. It will have old growth in it, and it will have new growth in it, and it will have some areas that are reserved for wilderness of whatever.

We do not know whether you are doing it that way. I do not think what you say helps us a whole lot. I can tell you for one person, as long as I am on this committee, I am going to be searching for a better description from you or whoever follows you so we can tell whether you are following the law or not.

So, you can rest assured that you are going to hear from me and probably a few others until we are satisfied that we have a logical plan for multiple use, and that we are abiding by the law and that

we are not gradually be cutting down, that you will get rid of all the old growth here, very shortly. But, Mr. Leonard says you are probably not going to do that, I guess I would take his word for it, but you do not say that quite right.

Mr. Chairman, that is about what my feelings are, and I just wanted to make that statement for the record. Rest assured that you will be hearing from us quite a bit more.

Thank you.

Mr. VOLKMER. We will stand in recess for the vote, and return to begin again.

[Recess taken.]

Mr. VOLKMER. The subcommittee will resume sitting. Those in the back will take their seats.

I have a few questions, Dale, that I would like to pursue. There were discussions earlier concerning the court decision, appealing, and that type of thing. Let us take a little different viewpoint, maybe.

Are you undertaking to try and satisfy the present court with the injunction as it stands in trying to come up with a plan so that as far as you are concerned, you would have no need to appeal?

Mr. ROBERTSON. Yes. We plan to go back to a judge with the protective measures we will propose, and we are working with the Fish and Wildlife Service on that in the interim on our timber sale program until the listing decision is made, and the Fish and Wildlife folks told me during the break that would probably be done within 1 year.

So, I am looking at going back to the judge to try to get the injunction lifted on a reasonable timber sale program during the interim.

Mr. VOLKMER. In other words, you would consider that a much better option than right now just appealing what the judge did, and say, "We are going to appeal it, and we will let the injunction stand until that appeal is decided." Is that correct?

Mr. ROBERTSON. That was the decision we made, but we are going back to court around the first of July. That is just 1 week or so away, so whatever comes out in July, we have got another decision point to appeal or not.

Mr. VOLKMER. I understand that, but the way I understood the gentleman from Oregon that was criticizing for not appealing right away is if you had appealed it and not taken these steps, then you would not be able to do anything as far as that injunction is concerned in the meantime?

Mr. ROBERTSON. That is correct.

The other complication is that the Fish and Wildlife Service was in court at the same time with another judge trying to decide whether or not the spotted owl is threatened. So, we had the same issue before two different judges, and we had to coordinate those two.

Mr. VOLKMER. Also, there has been a discussion here about the question of thinning and how much timber we can get next year from thinning trees. What did we estimate—some 200 million board feet?

Mr. LEONARD. About 280 million board feet.

Mr. VOLKMER. 280 million board feet out of how many total of 5.3?

Mr. LEONARD. The actual sale program, this year, is about 4.35, I believe.

Mr. VOLKMER. 4.35 billion?

Mr. LEONARD. Yes.

Mr. VOLKMER. That is a lot less than the 5 percent, 3 percent of the total.

Mr. LEONARD. That is correct. We cannot make up—

Mr. VOLKMER. It is a nominal. I would like to ask another question with regard to that.

Some people intimated last Tuesday that all you had to do was come up with thinning of these areas, and they would work with you on some other areas immediately, offer those for sale, and then all these sawmills out here can go ahead and cut these trees, and are going to stay in existence, and we have no problem.

Let us just ask you. If you decided to go into the process of designating other areas to offer for sale than what you have right now, what steps need you take in the timeframe in which to do that?

Mr. LEONARD. We have to identify the areas. We have got to develop a proposal on how you would harvest the timber in that area, both in terms of silviculture and logging systems and whatnot. Then, we have to prepare an environmental assessment to display those effects. After preparing that environmental assessment, you make a decision on specifically what you are going to do, and then you go out and do the layout of the logging systems, the roads, and the actual designation of the trees to be cut, advertised, and sold.

Ordinarily, we like to do that over a 5-year period. You can collapse that time, as we often do for salvage sales, but it is very difficult to do that in less than 12 to 18 months. That is the absolute minimum, and that assumes that you do not run into any problems or disagreements with anybody—

Mr. VOLKMER. And, all one person has to do is appeal that sale, and you are delayed even further, correct?

Mr. LEONARD. Well, it is certainly true that if we short-cut the process—if we do not do a good job on the environmental assessment or if we do not do a good job in the sale planning—then we are really vulnerable to challenge.

Frankly, there are no areas out on our forests that people are not interested in, that do not have an important feeling among people that are concerned, and we can go out and do what we want. Every acre of national forest has a proponent who is interested in what happens on that acre, and they are not always the proponents of timber harvesting.

Mr. VOLKMER. Another thing that I cherish your comment on with regard to this, if you take other stands, other than what you have been cutting previously, and what you propose for the cut this year, are the saw mills susceptible to take in any other timber other than basically what they had been? In other words, if you take trees that are for thinning purposes, will those sawmills be able to take those and sell those on their markets with their usual products?

Mr. LEONARD. There is a fair amount of interchangeability. There are, however, in the Pacific Northwest, sawmills that are de-

signed and are only efficient for handling very large old-growth logs, and have developed markets for the kinds of products that come from there. There are other mills that are designed and are particularly efficient, and have developed markets for the second-growth timber.

Given the tight supply situation, we can certainly have plenty of markets for that second-growth material we can sell. It really does not help out the mill that is designed for old growth, though.

Mr. VOLKMER. I would like to have, Mr. Robertson, your comment, too, on last Tuesday, one of the witnesses—according to my memory—likened what has been going on in the last 10 years in the Northwest to what is going on in the Amazon region of Brazil.

Would you agree or disagree with that?

Mr. ROBERTSON. I would disagree.

Mr. VOLKMER. Are we just cutting down trees and not replacing them?

Mr. ROBERTSON. No, we are reforesting every acre that we cut.

Mr. VOLKMER. We are not planting any soybeans out there, are we?

Mr. ROBERTSON. No, sir.

In the Amazon in Brazil, quite frankly, the bulk of the land that is being cleared is not going into timber production. It is being cleared for grazing and agriculture and other uses.

Mr. VOLKMER. That is why I asked. Down in Brazil, they are putting a heck of a lot of that land into soybean production.

Mr. ROBERTSON. Yes, and grazing.

Mr. VOLKMER. Yes. I did not think you were all doing that up there in the Northwest.

Mr. ROBERTSON. No, sir, we are not doing that.

Mr. VOLKMER. I will recognize, now, the gentleman from Minnesota.

Mr. VENTO. At least some of the areas would be categorized as temperate rain forest areas, wouldn't they, Mr. Robertson?

Mr. ROBERTSON. Yes.

Mr. VENTO. The chairman and I have both sponsored legislation on the Institute of Tropical Forestry to continue those carbon studies. Even though there is not a symmetry between the Amazon rain forests and these rain forests in the Northwest, we are affecting the carbon cycle as has been indicated by Dr. Spies. Is that not right?

Mr. ROBERTSON. Yes.

Mr. VENTO. It should be a consideration. We also affect the biodiversity and that is why we are into the owl issue. Is that not correct? The old-growth area has much more biodiversity than the secondary-growth or new-growth areas would have. Is that not correct?

Mr. ROBERTSON. Yes.

Mr. VENTO. I think that that may be what they were alluding to. I think we can explore that in a different means, but I think that is important to understand.

I listened very carefully to Mr. Leonard, and the conclusion of our discussion with Mr. Robertson and others is that we would have liked to have seen the forest plans go into effect. Last Tuesday, that was what we heard, too. We heard that from, for in-

stance, the timber industry. They testified that they wanted the forest planning process to proceed on schedule and without impediments.

Have some segments of the timber industry appealed certain aspects of the planning process in region 6 causing major delays in the development of plans?

Mr. ROBERTSON. You say "have they?"

Mr. VENTO. Yes.

Mr. ROBERTSON. I would say the timber industry has been concerned about the plans for the last few years.

Mr. VENTO. They have sought political means to some extent, and actually have protested personally. Is that correct?

Mr. ROBERTSON. Well, we have had a lot of discussions with them about the plans.

Mr. VENTO. In other words, they have resisted the 3.9 billion board feet of planned cut—or sale in the plan as an example of an issue?

Mr. ROBERTSON. I would say they were not enthusiastically supportive of that number.

Mr. VENTO. Well, that is probably the understatement of the year.

This has enabled the industry to continue to have more timber under the existing plans than what the new plans would have provided. Is that correct, Mr. Robertson?

Mr. ROBERTSON. That is correct.

Mr. VENTO. My statistics indicate that under the appropriation bill which mandates 11.5 billion board feet, region 6 has to come up with 5.2 billion board feet. That is 46 percent under the law. The draft plan says 3.9.

You suggested, of course, that in the overall decade of the 1980's, the actual average sale is in excess of 5 billion board feet. But, you suggested that not all of that was purchased because of economic and other factors, and that some of it came back to the Forest Service. If the plans were in effect, you would not be putting that much out for sale per year. Is that right?

Mr. ROBERTSON. Well, we are back to the old problem of net plus gross.

Mr. VENTO. I mean if the plans were in effect, you would be putting out about 4 billion plus whatever the other bits and pieces you had. Is that correct?

Mr. ROBERTSON. On the average over a 10-year period.

Mr. VENTO. I am not asking you what was cut. I am asking you what would be put out for sale. What would be put out for sale is what is in the plan. Is that correct?

Mr. ROBERTSON. Yes.

Mr. VENTO. I understand the dilemma that you are in. It is not all your fault. Part of it is our fault in terms of the appropriations bill. So, I am just suggesting that the problem here is that although we have a crisis situation created by the endangered species law, there are also some other factors. If they had been followed properly in terms of the law, there would not be as great a disparity as exists today. Is that not accurate? If the planning process had been followed, there would not be the disparity. We would not have had the same problems.

One of the problems is the uneven distribution of the way the lawsuit or injunction affects the timber supply. There are still some sales out there that can be sold and have been sold, but they are not necessarily spread out evenly so that all mills and all work can continue. Is that correct, Mr. Robertson?

Mr. ROBERTSON. That is correct.

Mr. VENTO. BLM is also nodding approval. I will recognize that and let you continue.

Mr. ROBERTSON. Some mills are almost out of timber supply, and others have a supply for 18 months to 2 years.

Mr. VENTO. We had witnesses that said they were out, and that they were laying off some workers. We hope that you are going to do what you can. I notice that Mr. Leonard talked about the thinning and some of the other things that would go into effect.

I just had one other question, and I wanted you to respond briefly to this, Mr. Robertson, or have Mr. Leonard respond. My colleague, Mr. Morrison, referred to the movement of the spotted owl management areas to accommodate timber sales.

Why did this occur, and is it happening in other ranger districts, as well?

Mr. ROBERTSON. Well, I was not aware that we were moving those around. We have some options on where to put them. Sometimes, we choose options, and also we try to go where the owls are, as well.

Mr. VENTO. That was the contention, that you did not go where the owls were. You put up for sale where the owls were and moved protection to areas where they were not. That was the point, and I wanted to make sure that you were aware of it.

Mr. Chairman, I would ask unanimous consent that we be permitted to submit questions in writing to the two agencies and the witnesses that are here.

Mr. VOLKMER. Without objection.

Mr. VENTO. Thank you, Mr. Chairman.

Mr. VOLKMER. Gentleman from Indiana.

Mr. JONTZ. Thank you, Mr. Chairman.

Chief Robertson, on Tuesday, we heard testimony that approximately 16 to 18 percent of the timberland in the States of Oregon and Washington is privately owned, nonindustrial land, but that it is only producing about 6 percent of the timber—only about 36 percent of the timber that could be producing.

Are you giving some attention to these other private lands to be one piece of the puzzle to get us the timber supply we need from the Northwest?

Mr. ROBERTSON. Well, I would say we are working indirectly. The State forestry organizations are the ones that work directly with the landowners, and we support and cooperate with the State foresters.

Mr. JONTZ. The administration's budget for this year proposes how much for State and private?

Mr. ROBERTSON. About \$30 million, I think.

Mr. JONTZ. I question whether we are making the investment in those lands that we should be, and I have raised this question with you before on numerous occasions with regard to the other parts of the country. I just wonder, and I share some of the concerns of my

colleague from Oregon to whether we are really making an effort there that should be.

Mr. ROBERTSON. That is an important point. If you look at the long-term future, the potential to increase timber growth in this country predominantly is with the small nonindustrial private landowners that own 58 percent of the commercial forest land in the country.

Mr. JONTZ. Of course, it is much more true in my part of the country than the Pacific Northwest, but even in the Pacific Northwest, there is appreciable opportunities there that we are not now investing in the way we should be.

Mr. SPIES, I want to ask you one additional question, also, if I might. You stated in your testimony that the question of dependency of specific species is scientifically difficult to determine given the temporal and spatial variation in the habitats, which, as an example, you mentioned old growth may be important to some bird species during severe winters, but not during normal winters. Would that comment apply to the spotted owl or do we really know?

Mr. SPIES. I am not sure we really know with regard to the spotted owl. The bulk of the evidence that I have seen, and I am not an owl biologist, is that perhaps the temporal variation—seasonal variation in the use of habitat by the owl.

Mr. JONTZ. So, the fact that you see a pair of owls in an area that is not ecological old growth does not necessarily mean that those owls are not dependent on ecological old growth.

Mr. SPIES. That is correct.

Mr. JONTZ. We do not understand enough about the owls to really know that.

Mr. SPIES. The issue, I think, with regard to dependency is over what timeframe are these organisms dependent on certain habitats. There may be critical periods of bad winters or such or poor food years where certain habitats are keystone habitats for the survivorship of the species.

Mr. JONTZ. I appreciate the answers everybody on the panel has provided, and I yield back the remainder of my time.

Mr. VOLKMER. The gentleman from Oregon.

Mr. DEFazio. Thank you, Mr. Chairman.

Chief, since I gave a speech last time, I am going to give you a chance to say a few words. What is the option? What do you see as the solution, if you can give us an idea of how we might get some short-term timber supply out there. I believe, ultimately, and the Congress will have to be involved in the long-term solution, I think ultimately we may even have to legislate forest plans. I know my colleagues shudder to hear that.

Mr. VOLKMER. Would the gentleman yield?

Mr. DEFazio. I would yield to the chairman.

Mr. VOLKMER. I would say forget it. [Laughter.]

Mr. DEFazio. Anyway, I am talking long term I can look to. But, the question is both short and long-term, do you have a proposal for us on how we can get some more timber in the pipeline in the next 12 to 18 months in the Pacific Northwest and how we can head toward a long term resolution? You can give us legislative

proposals? You can do whatever you want. However you see, whatever you think?

Mr. ROBERTSON. Well, I want to take advantage of your staff's ideas if we can increase timber harvest in the nonspotted owl habitat, we are anxious to do that. That is within the existing administrative authority.

We do have other environmental protection measures that apply across the board to old-growth forests and second-growth forests. We are willing to look at the second-growth forests, and we will push those to the maximum extent that is environmentally safe to do in increasing timber sales in that part of the forest. I am anxious to work with you or anyone else to do that. I thought our people were doing that, but after today's hearing, I will check to make sure, if you have different information.

The old growth you have to divide into two categories: There is spotted owl habitat, and then there are other old-growth values. None of us want to see the spotted owl become threatened and endangered. That is a biological decision that the Fish and Wildlife Service has to make over the next year. It is really going to have a major affect on the availability of timber from the old-growth forests.

Sixty percent of the standing softwood saw-timber volume on west-side Oregon and Washington is old-growth volume. So, if that 60 percent of the volume somehow gets greatly constrained—and quite frankly, I do not see a lot of options to get out of that dilemma—it is going to mean a major reduction in the timber sale program in Oregon and Washington. I think we are going to have to face up to that if the spotted owl cannot survive without protecting the old-growth forests.

Assuming the spotted owl is taken care of, which is a big if, you have to worry about these other old-growth values, and we need to come to some sensible, reasonable balance between these old-growth values and the economic values of this forest. We have to sort through that.

I am excited about what Dr. Franklin and Dr. Spies have come up with in terms of how we can go to this landscape approach, and try to maintain some old-growth values, really, in a middle-aged forest. But, from a practical standpoint, that is going to take time, too. We are going to have to start moving in that direction.

You asked me what the solutions are. I guess I have to be honest with you. I am not overly optimistic that we are going to come through this without a significant effect on the management of the national forests of the Pacific Northwest. That is my honest opinion. I am always an optimistic person, but there are things here that do not make me so optimistic.

Mr. DEFazio. When you mentioned the 60 percent of the standing volume in old-growth timber, it brings us back to the crux of what we have now—with 3 hours today and 10 hours on Tuesday—which is that we do not have, an agreed upon definition. I think that is the first positive step the Forest Service could take, which would be to expedite a common definition in order to expedite a common definition in order to expedite an inventory so we can settle the question of whether there is 200,000 acres or 3 million

acres or 7 million acres and where it is. That is the crux of the dispute here.

I think that that definition would not find 60 percent of the volume to be in what is considered to be the ecologically significant large intact blocks of old growth.

Mr. SPIES. May I respond to that? I think that there is a bit of a misconception. We do have a commonly accepted definition, and that is the definition that we published that is referred to as the "PNW definition" or the "Franklin definition" or whatever. It has been agreed to by most of the environmental groups that are actively pursuing their own inventory of old growth.

With that as a starting point, I think we are way along toward some common understanding on definition. The trick will be to sit down with everyone's versions of the maps, and come up with some consensus as to whose map is correct based on the methods that were used.

Mr. ROBERTSON. You have to specify which definition, so the 60-percent figure refers to our old definition that we used in 1984.

Mr. DEFAZIO. Which is what Mr. Spies is talking about, which would be much more restrictive.

That was the crux. I know you were not here on Tuesday, Chief, but I mean the point is that when we had the panel, the environmental groups were able to say there is mature timber and there is old-growth timber, and there is young old-growth timber, and there is very old-growth timber, and the concern lies toward the far end of the spectrum, the large intact logs of ecologically significant, very mature old growth timber as opposed to the young old growth might be regrowth from a forest fire 180 years ago, or whatever, which is getting into diversity.

If we can narrow it down to that, and these are the roadless areas. I know a lot of the plan calls for going into the sale plans going into the roadless areas, but the point is that—I do not want to go into why I think that is going or whether there is an alternative, but I think there is an alternative to going into some of these larger blocks in the shorter term to get more volume out there. The example we have from the Wilderness Society on the Olympic where the Forest Service is saying, "We only come up with this 15 million," and they come up with the 70 million for the next year, or the 65, which is near the average harvest off that district.

I would like to see the Forest Service undertake the same sort of exercise they did on every district in the region, and ask the district rangers to come back and at least make that cut, and then you get something you can take to the judge and say, "Here are the large intact blocks, here are the fragmented blocks, here's the stuff that is younger. Yes, it is potential owl habitat, but this isn't the most significant," and see if the judge would lift the injunction on those sales, particularly if some of the plaintiffs would come in and support that petition for short-term timber supply.

That is what I heard on Tuesday, and you can review that with your staff that was here on Tuesday, that some of the plaintiffs will be willing to do that.

Mr. ROBERTSON. We would be interested in pursuing that.

Mr. DEFAZIO. Thank you.

Mr. VOLKMER. Thank you. Does any other member have any other questions they would like to ask?

The gentleman from Minnesota.

Mr. VENTO. Well, I am encouraged, Chief, to hear that you are interested in doing that. I think that really is where the solution is in terms of working this out. You can not just turn the land management plans over to anyone to pick and choose. As Mr. Leonard said, there is not an acre that you deal with that does not have threads attached to it. I think that is what we have to keep in mind. It is not just the spotted owl. If you move in another direction, you have a different lawsuit.

I wanted to make it clear to my colleague that the chairman said that there are protests with regards to forest management plans from others than just industry groups, as well. Is that right, Mr. Robertson?

Mr. ROBERTSON. Yes, there is a broader array of appellants.

Mr. VENTO. It is important to understand that everyone was making some noise about them.

I had some questions for the BLM, Mr. Stepanek. We have heard in testimony that the timber industry has indicated that the BLM is slow to reforest its lands. On an average, how many years after an area is harvested before is the land reforested?

Mr. STEPANEK. In 3 years from the time of harvest, we would have the area planted. That would include some time for site preparation.

I would point out that we had an unprecedented rate of harvest in 1988, 1.6 billion board feet, which left us with a lot of acreage.

Mr. VENTO. Is that the fire problem?

Mr. VETTERICK. No, part of it was the fire, but part of it was just the high level of harvest due to the market conditions and the favorable weather conditions to go in and log. We were left with more acres than we had both the funding and the tree seedlings to plant, given that you have to have about a 3-year lead time just to get seedlings in the ground and get the seedling production.

Mr. VENTO. We had indications that some of the areas are tough areas to reseed in that you lose a lot of seedlings. This is especially true in some of the BLM areas. It is not easy just to replant without intensive efforts. Is that correct?

Mr. VETTERICK. We have been without herbicides for about 5 years. That is beginning to have an effect on plantation survival. We have put out a final environmental impact statement on our vegetative management program. We hope to issue a draft record of decision for full public review.

Mr. VENTO. What is your backlog in terms of reforestation today?

Mr. VETTERICK. I believe we were left at the end of fiscal 1988 into 1989 with something on the order of 10,000 to 12,000 acres of area that should be site-preped and planted, but—

Mr. VENTO. Mr. Robertson, do you know what your backlog is? I am talking about region 6, of course? Mr. Leonard.

Mr. LEONARD. We have just roughly 1 million acres nationwide. That reflects the 2- or 3-year lag period between harvest. I do not have the numbers in region 6.

Mr. VENTO. But, that is a serious concern in terms of keeping these plans up to date, is it not?

Mr. LEONARD. We are fortunate in one sense in that we do have authority under the Knutson-Vandenberg Act to require our timber purchasers to provide us the funds necessary to reforest the areas.

Mr. VENTO. We are arguing about that right now in the Supplemental Appropriation Act, as a matter of fact. Unfortunately, much of those funds were cut out, as you noticed, in the House side at one point. We are not as quick to fund that program as we are to fund the roads to get in and cut the timber.

Mr. Stepanek, with regard to the amount of timber volume sold on BLM lands in Oregon the past few years, how much of that has been old growth? Can you give us any percentage or volume numbers?

Mr. STEPANEK. I would say about one-third.

Mr. VENTO. About one-third of it is old growth. So, it is a significant amount of the sales that you are providing. How much of the actual value of what you sell is old growth? It is much higher than one-third in value, isn't it?

Mr. VETTERICK. Do you mean does old growth bring in a higher rate or return than mature timber?

Mr. VENTO. Right.

Mr. VETTERICK. I would say that that is generally true, but not necessarily. In some cases, we get almost as much for, say, mature timbers as we would for an old-growth stand.

Mr. VENTO. You have to cut fewer trees in old growth, acre for acre.

Mr. VETTERICK. You would cut fewer in old growth than you would in mature, even submature timber.

Mr. VENTO. How much potential is there for a shift from old growth to second growth within the next few years with regard to the O&C lands?

Mr. VETTERICK. Our current plans outside of 143,000 acres of old growth assume that we would be in the old-growth area. As that was removed, as some of the more mature timber comes on, we would cut that, and some of the immature would become mature, so we would begin to progress a cycle.

I would say that if old-growth timber were removed totally and we were to stay on a sustained yield, we would have to go from 1.176 billion down to around 80 million board foot level.

Mr. VENTO. But, it could be done. What does your plan call for, 1.1 billion?

Mr. VETTERICK. 1.176 billion.

Mr. VENTO. Mr. Robertson, when you said you had a 50-year supply of old growth that could be cut before it would be eliminated, does that assume the 3.9 billion board feet level?

Mr. ROBERTSON. Yes.

Mr. VENTO. Thank you. Thank you, Mr. Chairman.

Mr. VOLKMER. I have one other question, too. Let us say that you work something up, and the judge approves it, you will undoubtedly have an interim plan for managing old growth or not, or just use the existing plan?

Mr. ROBERTSON. What I visualize is we have a—this deals with spotted owls part of it—the overlap between the spotted owl problem or situation and all old growth is about 70 percent. We are

working on the spotted owl portion. We are hopeful that we can get the injunction lifted based on our existing spotted owl management plan as it may need to be adjusted to reflect some of the new findings and conclusions of the Fish and Wildlife Service.

Mr. VOLKMER. That would relieve, supposedly, some old-growth areas?

Mr. ROBERTSON. If our existing spotted owl plan was accepted—I am just saying if—then we could continue with our fiscal year 1989-90 timber sale program because that program is in line with our spotted owl management plan.

Mr. VOLKMER. Right, but there would be areas where you are not going to be able to cut because of spotted owl habitat, correct?

Mr. ROBERTSON. Our spotted owl management plan, I believe, has about 400,000 acres of old growth that we are setting aside with no timber harvest for the maintenance of the spotted owl species.

Mr. VOLKMER. Then, there would be no need to develop any type of new plan as far as the rest of the old-growth area outside the spotted owl old growth?

Mr. ROBERTSON. As I said, the spotted owl is only one part of the issue here. In our forest plans, we are not only looking at spotted owl, but we are also looking at other values, too. There would be some additional old-growth areas along streams or other critical spots that are not necessarily spotted owl habitat, but would still be either protected—

Mr. VOLKMER. I understand that, but what I am trying to get at is whether or not we are going to have to come up with any type of new management plan for old-growth areas, areas that are 200 years or more, as a result of all of this. Are we going to be able to continue with our existing plans once you have set aside the quota as far as the spotted owl habitat areas?

Mr. ROBERTSON. All we are trying to do with the court, now, is to get some temporary relief from the injunction.

Mr. VOLKMER. That does not answer my question.

Mr. ROBERTSON. I know, but I am getting around to that question. A bulk of this old-growth management issue turns, I believe, on what happens to the spotted owl in the listing process. If it is listed as threatened and endangered, you have a completely different situation than if it is not listed.

So, we are trying to provide enough interim protective measures for the next year or two so that we do not completely shut down our timber sale program until the Fish and Wildlife Service can make that decision. Once that decision is made, if it is not listed, we are probably fairly well-off with existing plans. If it is listed, we have to go back to the drawing board on our forest plans as they relate to the spotted owl in old-growth forests.

Mr. VOLKMER. In other words, what you are telling me is that you would go back in 2 years or whenever the final determination is made on the listing and do nothing in between?

Mr. ROBERTSON. I want to do something in between.

Mr. VOLKMER. As far as a different type of management plan. That is what I am getting at.

Mr. ROBERTSON. That is correct.

Mr. MORRISON. Would the chairman yield?

Mr. VOLKMER. Yes.

Mr. MORRISON. Is it not true that you have not taken into consideration the planning that you have done under the Forest Planning Act as far as the habitat or preservation of the spotted owl is concerned?

That is their proposed listing, which I understand they start the formal process tomorrow——

Mr. ROBERTSON. Yes.

Mr. MORRISON. Did not include even the consideration of what you have already done because yours was not firmly locked into place?

Mr. ROBERTSON. The best I can tell they did look at our plan and considered it, but because it was not in place, they did not take that into account in making their decisions.

It looks to me like in the rationale they used, they looked at what happened over the last 50 to 100 years and projected that into the future. And that's true, if past trends continue into the future, the spotted owl is in trouble.

So, we need to look at our plan, or whatever adjustments need to be made in that plan, to see that past trends are changed enough so that we are taking care of the spotted owl.

But the written rationale that the Fish and Wildlife Service used was that our plan wasn't in place yet. While it is in place, in terms of planning, it is not in place in terms of timber sales that are out there, that were sold in the past.

But that spotted owl management plan is in place. It is reflected in our fiscal year 1989-90 timber sale program.

Mr. VENTO. Would the gentleman yield?

Mr. VOLKNER. Yes, I yield.

Mr. VENTO. I thank the chairman for yielding.

I think that the plans are once again ready to be put in place, like they were in 1980, but the problem even with the new plans, is that they reduce the number of spotted owls.

Is that correct?

Mr. ROBERTSON. That is correct.

Mr. VENTO. So, even having the plans in place is going to reduce spotted owls. They do reduce the number. Of course, the plans could have been in place a long time ago, if we had not had some of the political decisions made about the plans.

You had to redo them two or three times.

Mr. ROBERTSON. Well, we have been working on that spotted owl plan since about——

Mr. VENTO. I mean the forest management plans generally, not just the spotted owl. The planning process works, but a lot of people blocked the plans.

Thank you, Mr. Chairman.

Mr. VOLKNER. And you mentioned it is in place for 1989 and 1990, that it is going to be in place, a spotted owl plan will be in place for the foreseeable future.

Mr. ROBERTSON. Yes. Our plan plus whatever——

Mr. VOLKNER. We are not going to turn around and go back the old way after 1990?

Mr. ROBERTSON. No.

Mr. VOLKNER. Right.

Mr. ROBERTSON. Even if there is no listing.

Mr. VOLKNER. Right.

All right. Thank you very much. I appreciate your staying here for such a long time, Dale, and Mr. Stepanek, and all of you—I appreciate your testimony, and I'm happy, Dale, that you have such broad shoulders because you not only get it from the industry people, the environmental people, but some Members of the Congress are ready to jump down your throat, too, it appears, once in a while.

So, I'm glad you have such broad shoulders.

Mr. ROBERTSON. I am OK with that, Mr. Chairman, because we are dealing with a tough job, and it takes all of us to do it. I value the advice and counsel of both of these committees, because it is a tough job, and we need your help.

Mr. VOLKNER. We will be glad to work with you as we try to work ourselves out of this difficult situation at the present time.

So, we look forward to working with you.

With that, I will conclude this panel.

Mr. Bosco, do you still want to make a statement?

Mr. Bosco. Mr. Chairman, with your permission, I would like to insert the remarks that I had intended to give orally in the record to enable you to go on with your hearing.

I want to thank you for the ability to sit here with you. I find this information very valuable.

I represent a district in northern California, most of the redwood region of the State, and we are heavily impacted by this decision. We do not believe that we will be able to have any new timber sales now on our Federal forests at all, and so I wanted to let it be known to your joint hearing that not only Washington and Oregon are affected by this but certainly northern California as well.

Now, we depend on timber and fishing as our two major industries, and ironically both have been shut down by actions of the court, and the Federal Government this year. These small communities that have in the past depended on these two industries really have no other place to turn.

So, this is a crisis of great magnitude. I know that we have to do a balancing between our natural resources and those who need to depend on them for a living. Indeed, we have done that type of balancing in the past.

I guess I am starting to get a sense of frustration that these decisions are now not being made by public policymakers, but being made by judicial in courtroom procedures that in many ways ignore the good efforts that all of us have made to balance these issues.

But, having said that, I would like permission to submit my remarks for the record, and if possible to remain for another half hour or so to listen to the testimony

[The prepared statement of Mr. Bosco follows:]

CONGRESSMAN DOUGLAS H. BOSCO
TESTIMONY BEFORE THE JOINT NATIONAL PARKS AND
PUBLIC LANDS AND THE FORESTS, FAMILY FARMS AND ENERGY
SUBCOMMITTEES' HEARING ON OLD-GROWTH FORESTS

June 22, 1989

Mr. Chairman, I appreciate the opportunity to appear before you today to offer my thoughts on the protection of old growth forests and the current crisis in the West Coast timber industry.

While I don't wish to minimize the importance of ensuring the survival of the spotted owl and other old-growth dependent species, I do think we need to put this issue in its proper perspective.

The spotted owl is not on the verge of extinction. The Fish and Wildlife Service's decision to propose the owl for listing under the Endangered Species Act was based on its conclusion that current policies will not ensure the species' continued viability beyond the middle of the next century.

I believe the Fish and Wildlife Service's findings should be viewed as a warning signal, not a stop light.

No one is saying that tomorrow's national forest timber sale is going to doom the owl to extinction. It is the long-term trend that we have to be concerned with, and I think we ought to be able to address that without disrupting the economy of an entire region.

Nobody wants to see the extinction of a species, but neither do we want to destroy the livelihood of the thousands of families and communities that depend on sustained yield management of our public forests.

The truth is that we can't afford to write off either the owls or the timber industry. Economic diversity is as important as biological diversity. We are simply going to have to come up with new strategies for managing owls and other old-growth dependant species in timber-producing areas.

Given the limits of the currently available data on spotted owls, it is difficult to say now what our long-term strategy should be. We still don't know how many owls are really out there, particularly on private lands and in areas with second-growth timber. To its credit, the timber industry is now making a concerted effort to obtain that information, but more detailed data on the birds' reproduction in those areas will take more time.

Some of this information is particularly crucial. A study of spotted owl reproduction in second-growth cited by the Fish and Wildlife Service in its status review, for example, evaluated only 10 pairs, only two of which nested in the two years studied. Although I am not a scientist, I have to wonder whether this is a sufficiently large sample to justify Fish and Wildlife's finding that reproductive rates in second growth may be significantly lower.

Obviously, we are going to have to be willing to fund the studies needed to get this kind of information as quickly as possible. The problem remains, however, with what we should do in the meantime.

The Forest Service's current policy in Region 5 calls for halting all timber sales that would affect the spotted owl or more than 40 acres of potential owl habitat. As a practical matter, that means no timber sales whatsoever in the area I represent -- a prospect I find completely unacceptable.

Timber is still a mainstay of the local and regional economy in northwestern California, and many mills are already operating on the brink of closure because of tight timber supplies. The amount of timber under contract on the Six Rivers National Forest is slightly over one year's sales volume (down from historic averages of three to four years worth) and dropping quickly. Purchasers of recent timber sales are moving in to log them immediately, and stumpage prices have risen sharply. Some mills have only a few month's worth of timber now under contract. If they are unable to purchase national forest timber, they may be shut down this fall.

Mr. Chairman, I have become convinced that the careful planning required to manage our national forests must be carried out by professionals with the forest science who understand the

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various goals of our forest program ^{including} ~~instead of~~ conservation and protection. This mission in my opinion has been seriously hampered by "courtroom" management brought about by a host of lawsuits, each throwing into chaos the orderly planning process and each sending our professional planners on disparate courses. This is not fair to those who depend on the forests for their living, nor is it ultimately the best way to protect our environment either. I hope the Congress will rethink the labyrinth of laws and regulations that give rise to the current phenomenon of management by judicial review so that we can get back to a sense of normalcy and direction in our forest management.

Mr. VOLKNER. The gentleman's statement will appear at that point in the record in full, and we welcome the gentleman to stay and remain with us. And if he has any questions he would like to ask, if he will let the Chairman know, he will be recognized to ask those questions.

Mr. BOSCO. Thank you, Mr. Chairman.

Mr. VOLKNER. With that, we will proceed with our next panel, Mr. Neil Sampson, executive vice president of the American Forestry Association here in Washington; Mr. Patrick McElroy, department of natural resources, State of Washington, from Olympia; and Mr. Tom Franklin, field director, the Wildlife Society of Bethesda, Maryland.

Gentlemen, your statements will be made a part of the record, and what you testify to you may either summarize or review the statements in full.

We will begin with Mr. Sampson.

Mr. DEFazio. Mr. Chairman, can I interrupt for a moment?

Mr. VOLKNER. Yes, sir.

Mr. DEFazio. I would just like to insert with unanimous consent correspondence with the Forest Service regarding some of the issues I raised in the previous round of questions after the Forest Service testimony in the record.

Mr. VOLKNER. Without objection.

[The correspondence follows:]



United States
Department of
Agriculture

Forest
Service

Washington
Office

12th & Independence SW
P.O. Box 96090
Washington, D.C. 20090-6090

Reply To: 2430

Date: May 12 1989

Honorable Peter DeFazio
House of Representatives
Washington, D.C. 20515

Dear Congressman DeFazio:

Thank you for your thoughtful letter of April 12. Strategies that are being developed to minimize fragmentation of old-growth forests offer some new options for management. They also present us with some tradeoffs, and their design must be carefully considered and weighed against management objectives for the land to which they are applied.

The specific question you ask concerning the strategies is whether they would allow us additional flexibility to prepare timber sales to replace those that have been enjoined in the Seattle Audubon Society v. Robertson lawsuit. Our initial evaluation is that changes in dispersion requirements and clearcut size limitations would not be very helpful in offering alternative sale opportunities on an interim basis. Judge Dwyer has been enjoining, at the request of plaintiffs, every sale in spotted owl habitat, not just those in undeveloped areas. Therefore, we would expect sales in "leave areas" from previous sales to also be enjoined.

The idea of managing stands on a larger scale to minimize fragmentation and to mimic old-growth characteristics is still in the conceptual stage. We do want to expand beyond the work that is being done on the Blue River District of the Willamette. At this time, we do not need additional funds. In the long run, it appears that application of this strategy to portions of a National Forest offers significant opportunities.

We believe that the best interim solution is agreement with the Fish and Wildlife Service on an acceptable conservation plan for the spotted owl. The Forest Service, Bureau of Land Management, and National Park Service have requested a conference with the Fish and Wildlife Service to develop such a plan. We will work hard to develop at least an interim plan so that the sale program can be resumed this summer.

Sincerely,

[Handwritten signature of R. Dale Robertson]
R. DALE ROBERTSON
Chief



Caring for the Land and Serving People

FS-200-286-4-88

United States
Department of
Agriculture

Forest
Service

Washington
Office

12th & Independence SW
P.O. Box 96090
Washington, D.C. 20090-6090

Reply To: 2400

Date: April 27, 1989

Honorable Peter DeFazio
House of Representatives
Washington, D.C. 20515

Dear Congressman DeFazio:

Thank you for your letter of April 5 expressing interest in the Forest Service timber sale program and your offering to provide assistance as we move through the injunction in the Seattle Audubon Society case.

As you have identified, the Forest Service is having serious problems producing the timber sale offer level planned for 1989 and projected for 1990. I have requested that we appeal the Judge's injunction.

I have been consulting with the Regional Forester over the past several weeks attempting to address the concerns that you have identified. Our options are limited. We have very little ability to replace "lost" volume by moving volume forward in the planning process. This was done last year to offset the effects of the 1987 fires and litigation that had been occurring.

In a more general way, our discussions have concluded that we will have a great deal of difficulty meeting FY 1989 targets. Nor will we be able to move forward sufficient volume to meet the projected needs in the future. In the present environment, it would be a waste of the taxpayers' money to request additional funds for FY 1989. The die is cast at this point, and we must proceed with the program we have planned. Appeals and litigation have been and will continue to be very effective in delaying or reducing the program.

I would like now to specifically address your questions.

1. How much volume in the enjoined 140 sales could be reprogrammed into sales which would not violate the terms of the injunction?

Answer: It does not appear any of the volume could be reprogrammed. Reprogrammed sales would then be subject to the same legal challenge. Also, timber sales are designed to be fairly consistent in terms of timber sizes and products between individual harvest units. This will maximize the economic efficiency and will result in the highest return to the Government.

Honorable Peter DeFazio

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2. How much commercial thinning volume is available in the west side of Region 6?

Answer: The Region could offer between 250 to 285 MMBF of commercial thinning this year and on a sustained basis in the outyears. An additional 100 to 140 MMBF of capacity is in Spotted Owl management areas. We have received numerous proposals to replace the harvest of old growth with commercial thinning. These proposals often include various definitions of "thinning." The current definition used in Forest Plans is based upon thinning in stands from 30 to 70 years of age. I would hope that you would note that the receipts from thinning are about \$38/MBF compared to \$190/MBF for the kind of timber that has been enjoined. This is based upon the FY 1988 Cut and Sold data that we maintain for the harvest of National Forest timber.

3. How much volume scheduled for sale in the next 3 years is outside the terms of the injunction?

Answer: Approximately 10 BBF or about 3 1/2 BBF per year is "estimated" to be outside of the terms of the injunction. Due to the nature of the injunction, this is very difficult to estimate.

4. Assuming expedited procedures are used, how much of the above volume could be offered in the remainder of this fiscal year and FY 1990? What additional funding would the Forest Service require to accomplish this work?

Answer: Due to the lack of outyear preparation work, it will be difficult to bring forward any of the next 3-year sale work. With the additional funding, 288 MMBF could be added to the offer level from thinning. Initial estimates indicate that about \$6 million would be needed to prepare this timber volume.

Sincerely,

/s/ James C. Overbay (for)
F. DALE ROBERTSON
Chief

GJ #1386

Concur:bjd:04/20/89

Concurr: David L. Hessel: 04/21/89

STATEMENT OF R. NEIL SAMPSON, EXECUTIVE VICE PRESIDENT,
AMERICAN FORESTRY ASSOCIATION

Mr. SAMPSON. Thank you, Mr. Chairman.

It is a pleasure to come before the joint hearing and to congratulate both of the chairmen and the other members of these committees for tackling a tough subject with good effect.

Our statement focuses on two or three points, and I will simply summarize, then take the opportunity, Mr. Chairman, to make a couple of personal observations.

The debate on old growth has been terribly polarized, coming out mainly in either/or terms. Either you are going to convert the old-growth forest stands in the timber base to second-growth management or you are going to draw a line around them and name them "wilderness," and stay out.

We are quite unsatisfied with the fact that this issue has been cast in that sort of either/or situation. With that polarity in the debate, there is not much room for compromise.

We have heard this morning of the anguish that agencies and organizations and the Congress itself has gone through, but it seems to me that this polarity simply fosters misleading tactical statements.

We heard this morning about the comparison between the timber harvests in the Pacific Northwest and the tropical deforestation in places like the Amazon Basin.

To those of us who have tried to get our hands around both these issues—and that includes many of you on that side of the table, they are not the same issue at all. They are both of terrible concern to us, but they are not the same issue. To suggest that what we are doing in the Pacific Northwest is the same as the complete deforestation—and destruction of an ecosystem—even to the point where soil changes make reforestation impossible—is misleading the public.

Those young second-growth forests in the Northwest may be seen by some people as a poor substitute for an old-growth ecosystem, but nevertheless, if we manage them correctly in the next 100 years, they are a forest future of significant strength and productivity.

The question that comes before is: "Will we manage them well in that next 100 years and get that advantage?"

The Forest Service must, in our view, share some of the blame for this polarization. Too many of the forest plans only proposed the two alternatives we set up:

Either convert the old-growth stands in the timber base into second-growth management on an 80-year rotation, or designate it in some other use.

That helped set up a polarized debate where the environmentalists and the industry chose up sides and tried to get a few more acres drawn into "their" favorite land use category.

What that did was to pass up a golden opportunity for the Service to develop some management strategies, innovative and unique to the National Forest system. This system is not private land, it is not a tree farm; but it is also not a national park or a wilderness area. It is set up to meet national goals that include both commodi-

ty and environmental values. Yet what we heard in those plans was, it seemed, the land would be treated either as a tree farm or a park.

Now, the real question, it seems to us, is, Will we have old-growth Douglas-fir, or old-growth redwood, to be cut for commercial products late in the 21st century?

For people who do timber framing, or build particular wood products, both in the East and West, that's a fairly important question. When we take a look at a tree in Japan bringing \$1 million on the stump these days, we realize that scarcity still matters. We also realize that the old-growth ecosystems which are managed for the production of old-growth products 50 years from now will, if they exist, be on the national forests. They won't be on the private and State lands, to any extent; and they won't be in the national parks and wilderness areas unless we make some significant public policy changes.

So, what we do today on the national forests in terms of planning for a sustainable old-growth management system is very critical, if, in fact, we are to have the kind of products that are only produced by old-growth forests and older and larger trees.

The question then becomes, Can we not keep a fair portion of the national forest system in an old-growth ecosystem or a simulated old-growth condition, under active forest management?

We hear from people like Dr. Franklin and Dr. Spies that there are those possibilities, but if you go back and look at the forest plans, you would not find much documentation that those options were actually considered or selected.

Right now, you are searching for a short-term solution, and I sympathize with the people who are representing the good folks of western Washington and Oregon and northern California, and others, because those short-term solutions are highly critical.

But in the sense of public policy for the national forest system, let's also talk about the long-term solution. Let's talk about getting through the short-term solution in a way that still gives us long-term options. We think that a major look at a long-term option is a national forest that is still managed, but managed with a much lighter hand that considers the old-growth ecosystem as a continuing part of the forests, and that finds ways so that timber harvests and other environmental values can more peacefully coexist.

I would like to close, Mr. Chairman, with a commendation for the people who are trying to bring folks together and negotiate these things, because it is quite clear that this is an issue that cannot be decided up or down; it has to be negotiated, and there have to be some solutions sought.

And that includes the timber, fish, and wildlife agreement that was reached in Washington, as well as the meeting that the Oregon delegation is trying to arrange right now.

As a 15-year-old, I was a go-fer on a crew in the Bohemia District of western Oregon, and got my experience with one-log loads and a few other things that an Idaho stumprancher did not think was possible until he went out there.

It was easy to learn that those communities are very dependent on the national forests, and it was—even then—really tough to find middle ground solutions to the tough management issues.

I went back there 2 years ago, and spent 1 week with people from Oregon State University, BLM, Forest Service, and the Weyerhaeuser Co., and saw some very outstanding and excellent timber management.

But I came away with one observation that bothered me: You could have taken those excellent State, private, and Federal foresters and changed their uniforms all around, and put them back on any acre out there, and the management goals would not have changed a bit.

Silviculturally, they were managing the timber base almost identically on all those lands. It is a very productive form of management. It has a lot of good points. But I have the feeling that we ought to have a different vision for the national forests than for any of those other land units. The law calls for it, and the public demands it, and I was disturbed that I couldn't find it. I hope that in hearings like this, and resolution of issues like we have before us today, we can find ways to express that different vision.

We really thank you, Mr. Chairman, for the chance to be here. [The prepared statement of Mr. Sampson appears at the conclusion of the hearing.]

Mr. VOLKNER. We will now hear from Mr. McElroy.

**STATEMENT OF PAT McELROY, DEPUTY SUPERVISOR,
WASHINGTON DEPARTMENT OF NATURAL RESOURCES**

Mr. McELROY. Thank you, Mr. Chairman.

I am Pat McElroy of the State of Washington, department of natural resources.

I am pleased to be here to present the views of Washington's elected land commissioner, Brian Boyle, on this subject. My prepared remarks talk about four specific areas, and I will just highlight those.

A brief description of the work of the Commission on Old Growth Alternatives for Washington Forest Trust Lands, a review of the factors affecting the timber supply situation in Washington, from our perspective, a little bit about forest inventory and timber supply assessment, and a few comments relevant to log exports.

We in Washington are involved in the spotted owl/old-growth issue because next to the Forest Service, we are the largest forest landowner in the State. We own about 2.1 million acres of forest lands, mostly from federally granted land at statehood.

We also have some county lands that came to the State through tax title and fines. We do have some old-growth forests. We do have some ecologically defined old-growth forests. We do not know how much because we do not know what the definition is either, but we use our view of it.

Anyway, by May of last year, the land commissioner could see that unless some bold new approach was taken to deal with the issues related to timber harvest from State trust lands, demands for old-growth preservation and demands for eliminating any threat to the spotted owl, the State would be faced with the same kind of law suits, sale appeals, and other actions as were occurring on Federal lands.

Thus, he established the Commission on Old Growth Alternatives for Washington Forest and Trust Lands. The significance to you is that to our knowledge the commission is the only current forum in which all of the affected parties are negotiating the spotted owl and old growth in a creative and nonadversarial way.

The commission is a select group of 34 citizens broadly representative of the timber industry, conservation, and wildlife groups, school and other trust beneficiaries, Indian tribes, local community leaders, legislators, and financial, legal, and forestry leaders.

The commission's recommendations will be presented to Commissioner Boyle on June 28 in Seattle. While we are not able to release their final recommendations at this time, my paper does talk about some of the processes they use and some of the issues that they face.

Again, I think the significance from your standpoint is that we are working with a situation where we believe we will have a facilitated agreement on how to manage these old-growth forests on Washington's trust lands in the Olympic Peninsula. We think further that this process may have applicability beyond the western Olympic Peninsula of Washington State.

A few words about timber supply. One has to get into the supply and demand and price situation. I think the point to be made is that in Washington in 1988 more timber was removed than in any year since 1973, and the harvest level has only been exceeded two times since 1950.

The issue is not how much timber there is but its relative price. That is the real crux of the problem. We have very high export demand for both finished products and raw logs. So the issue is one really of price, not of supply.

I want to talk 1 minute about timber inventory if I can. As indicated earlier in the hearings, there are long-term and short-term issues that need to be dealt with. One of the things that we see is right now, today, is the decisionmakers in Washington State, do not know how much timber inventory by age class, is out there, and how much of that in the long term might be available for processing, how much is reserved; whether it is old growth, or old trees, or an intermediate age. We simply do not know how much is out there.

We think that we need to take a look at that.

Now, last, if I can, I would make about three comments relative to log exports, although I know it is not specifically a subject of this hearing.

For us, in Washington State, this is an important issue. The timber business is cyclic and log export provides a counter-cyclical employment in that industry.

The second point is that even if you ban export of logs, specifically those from State land, it will not prevent the logging of old-growth forests. The trees will be logged, but they will be processed in a different place.

And the last point, and to conclude my remarks, is that the effect of a log export ban on Washington would be a shift of income of \$100 million from Washington school system to the millowners of Washington, and that kind of an income transfer should be dealt with, we believe, in a different framework.

Thank you for the opportunity to appear.
[The prepared statement of Mr. McElroy appears at the conclusion of the hearing.]

Mr. VOLKNER. Thank you, Mr. McElroy.
Mr. Franklin.

**STATEMENT OF THOMAS M. FRANKLIN, FIELD DIRECTOR,
WILDLIFE SOCIETY**

Mr. FRANKLIN. Mr. Chairman and members of the subcommittees.

The Wildlife Society which is the association of professional wildlife managers appreciates the opportunity to participate in this hearing.

We have given a lot of thought and study to this subject of old-growth forests wildlife management, and have, in fact, done a scientific review paper on that in subject and a position paper which we have submitted for the record.

But I would like to just summarize some of the elements of these statements here for you today. With regard to the extent of old-growth forests in the Pacific Northwest, you have probably heard already, but I will restate that in the Douglas-fir region in the Pacific Northwest, only about 17 percent of the old growth that existed in the 1800's exists today.

Currently, as we have heard, old-growth harvesting is occurring at a unsustainable rate.

With regard to the definition of "old growth," the age of trees should not be the sole measure of old-growth conditions, because stands of trees could attain a particular age and still differ dramatically because of specific species, characteristics of the site, quality, and disturbance.

So, instead, old growth should be defined ecologically based on composition of plant and animal species vegetative structure, including sizes and densities of living and dead trees, and the number in nature of canopy layers.

Minimum stand size is related to specific ecological functions, particularly those concerning wildlife and fish habitat. The Society of American Foresters definition for old growth in the Pacific Northwest, and I would hope that the committee would consider that as possible alternative definition because we think it is a good one.

Old-growth forests provide important wildlife and natural resource functions. The Pacific Northwest old-growth forests are required by certain wildlife, such as spotted owls. Old-growth forests also function ecologically as important pathways for fixing nitrogen, retaining and recycling nutrients, and producing high quality water—all of these factors are very important to the diversity of wildlife.

Research indicates that all tree and forested landscapes result in changes in the distribution and abundance of wildlife. The depletion of fragmentation of old growth is reducing the chances that we can retain viable populations of plants and animals that use or are dependent on old growth.

In addition, increased old-growth harvesting threatens to create highly fragmented landscape patterns that include an increase in the amount of forest opening edges and a decrease in the size of old-growth forest patches.

In many cases, these patches are so small and isolated that their continued existence is threatened by such factors as microclimatic changes and wind throw.

Moreover, many such patches may be too small or isolated from other similar stands to function effectively as wildlife habitat for species associated with old growth.

We believe that in planning for old-growth management, several factors should be considered including the biological requirements and ecological relationships of associated plants and animals; amounts, kinds, and sizes, and arrangement of old growth; environments required to meet general ecological needs and to ensure the continued existence of associated wildlife; and sizes of old-growth patches required to ensure long-term stability of old growth as an ecological unit.

We have several recommendations that I will summarize.

These are that old-growth management should place high priority on the retention of enough old-growth forests to ensure viable and diverse wildlife populations and interchange of individuals among populations. Otherwise extinctions may result.

We should recognize—we hope the Congress will urge the Federal agencies to recognize—that old-growth forests cannot be recreated with current state-of-the-art silvicultural practices as we know them now; that Federal land management agencies are directed by laws and accompanying regulations to maintain diversity for plants and animals and viable populations of native wildlife.

We call for State and Federal agencies to get on with the important effort of defining, thoroughly inventorying, and mapping existing old-growth forests.

We call for State and Federal land management agencies to implement plans for maintaining old-growth forests that incorporate analysis of long-term cumulative effects on biological diversity, and an ecosystem approach, in addition to just focusing on high-profile species like the spotted owl.

We call for the Forest Service and Bureau of Land Management to maintain sufficient quantity and distribution of old-growth stands with comparatively high volumes and wood per unit area, to support associated wildlife and ecological functions; to recognize that information is presently not available to determine the number, size, and distribution of old-growth stands required to maintain all associated wildlife and other ecological values. In the absence of such information, we should take a very conservative approach to the harvest of old growth.

We should require Federal land management agencies to plan to replace existing old growth over time. We need to be worried about not only the current old-growth stands, but how we are going to maintain them over time.

This summarizes my comments, and I would be willing and very much interested in answering questions.

[The prepared statement of Mr. Franklin appears at the conclusion of the hearing.]

Mr. VOLKMER. Thank you very much, Mr. McElroy.

Has the State legislature, general assembly, whatever you have in Washington, considered legislation to ban exports from State forests?

Mr. McELROY. The subject has come up. It is even been a subject of initiative action in Washington State a number of years ago. It was defeated. The legislature has considered it at various times, but has not passed such legislation.

As you know, the Alaska case would preclude that type of legislation.

Mr. VOLKMER. In effect, the State of Washington through its populace and legislature have rejected export bans in the past, then?

Mr. McELROY. That is correct.

Mr. VOLKMER. OK, Mr. Sampson, you say you like to see a little different management plan as far as our Federal lands are concerned. That would include both BLM unit and national forest lands, correct?

Mr. SAMPSON. Well, we have to recognize the difference in the legislative mandate of the BLM-managed O&C lands, but to the extent that they can in fact maintain that sustainable forest ecosystem within their legislative mandate, certainly.

Mr. VOLKMER. Well, the question is, do we change the legislative mandate?

Mr. SAMPSON. I don't think we have clear evidence that the legislative mandate is wrong. I certainly did not agree with the notion that sooner or later the Congress ought to legislate forest plans on an individual basis.

Mr. VOLKMER. All right.

Mr. SAMPSON. It seems to me that a legislative mandate is still in the right framework of general guidance. I think the question becomes the development of specific management options within that guidance at that specific forest or BLM unit level.

Mr. VOLKMER. All right.

Thank you very much.

Does the gentleman from Minnesota have any questions?

Mr. VENTO. Yes.

Thank you, Mr. Sampson. We appreciate your testimony. While tropical rainforests and temperate rainforests are far different in characteristics, there is a similarity in terms of the carbon-cycle issue that we are dealing with. Do you yield on that point?

Mr. SAMPSON. Well, we heard what the gentleman testified on the work of Oregon State. I want to mention, as you know, Mr. Vento, that we have been interested in that. We currently entered into an agreement with EPA and the Forest Service and several other agencies, to bring together that research. I do not think that we have clearly defined those numbers yet. We will be with you in about 3 months with those numbers.

We have indications—although people have been arguing about it—that, in fact, old-growth management will not cause a net release of carbon dioxide to the atmosphere. But, if we are wrong on that, we want to know it and know how much carbon release is involved.

Mr. VENTO. Well, yes, I guess it sounds like there is some pretty positive information on that that indicates it will. We will certainly use your sources as well.

The funny part of all this is that the forest management plans have been held up, but they have not been held up for the right reasons.

Mr. SAMPSON. That is probably true.

Mr. VENTO. In other words, they have not been held up to use the knowledge or the insight of Dr. Franklin or Dr. Spies. They have been held up to maintain the 5 billion plus board feet sales each year. That is the problem.

And part of that is driven by the Appropriations Act. We all smiled when people said that we ought to be legislating the forest management plans, but, in fact, we have been doing just that in the Pacific Northwest.

Mr. SAMPSON. To some extent.

And I guess the point I was making is that when you offer people the sort of the A and the Z options on both ends of the spectrum, you are going to find somebody that does not like either one. You are going to get appeals, certainly.

And it seems to me that there was room for more leadership, somewhere in the middle on those options.

Mr. VENTO. Well, I agree, and I was pleased to see that Mr. McElroy's statement indicates that they are trying to work on this.

Mr. Sampson pointed out that the Forest Service is going to have the only residual old growth. We cannot count on the States or on private landowners to do that.

Is there no effort in the State of Washington to preserve old growth on some of the State's lands? Is there a plan that would preserve some of these areas and their biodiversity?

Mr. McELROY. There is a two-part answer. In the first place, these are lands that, by and large, came to the State at statehood as Federal land grants. And the Enabling Act specifies that those lands be used to produce income for the—

Mr. VENTO. Yes, that is the maximum income?

Mr. McELROY. Well, income. The old issue of maximum, what is maximum? We have to follow the Shoreline Management Act. We have to follow the Forest Practices Act. So, we cannot go for the maximum dollar, but within these confines, yes. Substantial—we manage to produce a substantial flow of income.

Part of the issue that the old-growth commission is dealing with is how do we, as a State, recognize and preserve those sorts of values. I am not privy to, or even at liberty to, discuss what they have come up with, although I would point out that Dr. Franklin actually serves on the old-growth commission.

Mr. VENTO. So, you think that all of those ideas may be workable. They may not be, in terms of what we are talking about here. We do not quite know yet, although I think they ought to be explored. Unfortunately, we have not used these past 7 or 8 years to explore that. They have been used for other purposes. I do not think we ought to kid ourselves about what these purposes were. I think I made that pretty clear in my questions to the Chief.

I appreciate the Wildlife Society's views on this issue, Mr. Franklin. Obviously the question of biodiversity here is important.

It is not just the spotted owl is it?

Mr. FRANKLIN. No, it isn't.

We are looking at old-growth forests as an ecological system and sometimes it tends to overemphasize these individual species.

Mr. VENTO. Well, I do not know if it is a keystone species, or an indicator species. I do not remember enough from my ecological training to recall that.

Mr. FRANKLIN. Well, keystone, I think is a fairly new term that has been used.

Mr. VENTO. Yes.

Mr. FRANKLIN. But we really look at old-growth forests as a rare resource in themselves. You know, we are down to a very small portion of what originally occurred.

If you look at them as compared, say, to wetlands, for example, where we have lost about half of the wetlands. We have lost a much larger percentage of old-growth forests throughout the country, and including in the Pacific Northwest.

So, we are very concerned about the loss of that system.

Mr. VENTO. It is a question, too, of whether the Forest Service can integrate into these plans the existing state of knowledge on what is going on. What we are really hearing here is that there is evolving information that has to be integrated.

There is nothing wrong with the overall law probably. The explosion of information about this is much greater now. Before the State or private woodlots accomplished some of these old-growth objectives but no longer are doing it. Now, the Federal lands have to do it pretty much all on their own.

Then, we have Congress interfering through the Appropriations Act and others barring the implementation of the plans. All of these factors have compounded the problem.

Thank you.

Mr. VOLKMER. The gentleman from Washington.

Mr. MORRISON. Thank you, Mr. Chairman.

Mr. McElroy, it is nice to have you here, and, of course, those of us from Washington have to be very pleased with the leadership that our commissioner has provided, an elected commissioner, by the way, gentleman, which is perhaps unique in the United States, or at least not too many States have done this. We recognize the value of these natural resources.

In the procedure that has gone through has received some rave notices, and that is bringing people together. And Pat, I would like to take the few minutes we have to explore that, to see if that, maybe, is one of the paths that we have to follow nationally.

How much old-growth forest do you have left within the State? I understand it is limited.

Mr. McELROY. Yes, it is limited. It is a little hard to say because, again, the whole issue of timber inventory and what is counted. Most organizations do an inventory to determine what they can cut, so they take an inventory that is an entirely different type than would be done for an ecological inventory.

We know how much land we have that has 160-year-old plus timber. That is really all we know at this stage of the game. And in the western Olympics, we have about 60,000 acres of that type of land left.

Mr. MORRISON. And, is that roaded?

Mr. McELROY. It is, for the most part, roaded. Most of our ownership has been pretty well developed with roads.

We do have scattered parcels in other parts of the State, but the nature of the land grant does not lend itself to a lot of large plots. We do have a few.

Mr. MORRISON. And it is my understanding that because of this forum that you have established that there have been limited appeals or no appeals on sales that the Department of Natural Resources has offered.

Mr. McELROY. We have developed two processes. In the first place—the Department was given directions by the board of natural resources to achieve two goals. One, is to minimize the added risk to the spotted owl. That does not mean to eliminate, but minimize the added risk, and at the same time maintain a viable sales program.

To do that, we first developed a screening criteria for timber sales that relates to adjacency and fragmentation and those sorts of issues on the spotted owl. We have had people complain about sales, but we have not yet been taken to court on any specific sale. Occasionally, the board has refused to sell sales, but basically most of them have moved through the system without appeal.

Mr. MORRISON. And it is your hope that when your commission reveals its program shortly that you will have set a stage so that you can proceed with management for those remaining "old growth" acres without the problem that the Forest Service and Bureau of Land Management have faced?

Mr. McELROY. That is certainly our hope, and it is our belief as we have watched this group work, we believe that they will come to consensus, or at least nearly so, and we think that the product that will be put forward will be acceptable, to the bulk of the people on the commission.

I cannot imagine one of those groups appealing.

Mr. MORRISON. But we have great hopes because many of us, including Mr. Sampson in his statement, hope that a kinder and gentler management approach in our forests can, in fact, lead to some peace in the valley, which obviously we do not have now.

Mr. Franklin, just one quick question for you. I presume in your organization there is some conflict on this issue. I know your wildlife members in my district are more enthusiastic about elk hunting and deer, all of which come from the open spaces, that are the result of timber harvests.

Mr. FRANKLIN. Yes.

Mr. MORRISON. They would rather eat elk or deer than spotted owls. Put it that way.

Mr. FRANKLIN. We do not have unanimous agreement on these subjects, but we have developed these statements through a consensus process, and essentially, the field of wildlife management is very broad. We are concerned about all species of wildlife and all habitats. We are not just interested in the harvestable ones.

Mr. MORRISON. Thank you.

Thank you, Mr. Chairman.

Mr. VOLKMER. The gentleman from Indiana.

Mr. JONTZ. Thank you, Mr. Chairman.

All three of you were here for the discussion we had with the prior panel, and perhaps a couple of you were here on Tuesday. And I want to ask for your response to a question that I have after listening to all the discussion that we have had previously.

It appears to me that we have the means, the tools at this point to go into a forest and at least begin the process of identifying some areas which are not ecologically significant old growth that could be made available for sales, that would not be objected to or would not be appealed by at least the environmental groups that have been represented here.

But when I raise that prospect, you heard George Leonard in the last panel say, "Well, that doesn't mean that everybody's going to be satisfied. Somebody else is going to take us to court," and one would get the impression that there is a never-ending line of potential litigants out there that present an impenetrable barrier to proceeding with sales.

And, Mr. McElroy, I was interested in your comments. If I understand what you said correctly, you have been able by setting up a process and by getting some confidence in the various parties that are involved to avoid appeals on State sales?

Mr. McELROY. Yes. In addition to developing our screening criteria, we were able to negotiate with the major parties, the Washington Environmental Council and the Department of Wildlife, principally, but also some others, processes which could keep sales moving. We saw what might happen in our Olympic region, which cuts about half of our harvest—about 350 million board feet a year come off that particular bloc of land—unless we could quickly clean up substitute sales.

We developed a fast-track sales process that we got the interested parties to agree to areas that we could sell timber without a particular problem, and we moved those sales. A typical sale at that time was running around 18 to 24 months to put up. We have that now down to about 7 months, from the day the troops hit the ground.

Mr. JONTZ. Do you see some reason the Forest Service cannot do that?

Mr. McELROY. I believe that they have substantially more hampering regulations and processes than we do. I do not presume to suggest to them that they can do it as fast as we can, but I think that by sitting down with everybody and working together as we have done with the commission, as we did with timber, fish, and wildlife, and, as a fact, we did on this sales-shortening process they might be able to. Because there is a recognition on the part of the environmental community that we have to sell some wood. The school trust has to have the wood sold to build schools. That may be part of it, that there is a definitive mission for our product.

Mr. JONTZ. Well, if the Forest Service went to the effort to distinguish among areas and identify ecologically the important old growth and demonstrate some sensitivity to the issue, would that give the environmentalists more confidence in the process, and make them less prone to litigate or appeal every sale?

Mr. McELROY. If that question is directed at me, I cannot answer for the environmentalists.

Our experience has been that, but that has been our experience.

Mr. JONTZ. That has been your experience. Well, I appreciate that none of you there represent the environmentalists, but you are astute observers of the scene, and it is a little harder for those of us from a distance to understand what the dynamics are.

But, Mr. Sampson, would you like to comment about that question?

Mr. SAMPSON. Well, as an observer from some distance of the Washington State process, we have nothing but the highest praise for it. We get really good comments from our members out there.

I think we need to recognize, at least, in terms of the timber, fish, and wildlife negotiations, some factors that were at work. One is, it took 2 or 3 years of skillfully facilitated negotiations to build the kind of trust that was needed for success. To transfer that process to the national forests where we have had 8 years of acrimony, and suggest that we start from the same plateau, is maybe asking a little much at this stage.

The participants in the timber, fish, and wildlife process turned to a negotiated settlement because what had been going on—the conflict—was simply becoming too expensive for everybody involved.

It would appear that environmentalists and industry alike are coming to that point of view in many other forested areas, and that negotiations are the only way out, even if it is not going to be easy.

Mr. JONTZ. Thank you.

My time has expired.

Mr. VOLKMER. Any other member have any additional questions?

Mr. VENTO. Just a comment, I think, on the last part. I think Mr. Jontz' questions are right. After 8 years of frustration obviously we now end up with a crisis. I think that there hopefully will be some opportunity in the future where these various groups can work together, but it seems to me that they are not all engaged at this point, based on what I heard on Tuesday. I certainly want to encourage the Forest Service, BLM and the conservation and business groups to do work together as I did on Tuesday. I think that it is very helpful for us to get involved.

We can provide some solution at some point if it turns out that we need to do so, but we should not do so on a one-sided basis which has been the tendency of the Appropriations Committee.

I have real problems with that, myself. I think that other committees may have some problems with that as well.

Mr. VOLKMER. Mr. McElroy, just out of curiosity, again in regard to the questions of both the gentleman from Washington and the gentleman from Indiana, the process that the State follows in preparing and submitting areas of the State for sale—your forests for sale—are those similar or different than what the U.S. Forest Service has to follow?

Mr. MCELROY. I think that they are maybe a little less detailed. Basically, we go through similar processes. We have to get a forest practice permit from the State. It happens to be a different branch, even of the same department. But, we can put a sale up, typically if there is no particular sensitivity in 7 to 12 months.

Mr. VOLKMER. You do an EIS?

Mr. MCELROY. We do not do EIS's. We do an environmental checklist on them. The State environmental policy act we have in

Washington mandates a checklist on a decision. We have a board of natural resources which must approve timber sales appraised at more than \$20,000. So, we go through a fairly complicated process compared to a private business.

Mr. VOLKMER. Can a private individual appeal a decision on an environmental assessment to the courts?

Mr. McELROY. Yes.

We actually had one lawsuit a number of years ago. In addition, there were 64 sales appealed at one time, and we negotiated those out. Since 1983, we have not had an official appeal of a timber sale. We have had some discussions about individual sales. We have pulled sales to talk about them, and we have modified sales, but we have never had a legal challenge on a sale since 1983.

Mr. VOLKMER. I want to commend you on that.

With that note, we will complete the hearing. I want to thank each member of this panel for staying all day to get here, and appreciate your testimony. You have been very helpful.

With that, we will adjourn the hearings.

[Whereupon, at 1:50 p.m., the subcommittees were adjourned, subject to the call of the Chair.]

[Material submitted for inclusion in the record follows:]

STATEMENT OF
F. DALE ROBERTSON, CHIEF
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on National Parks and Public Lands
Committee on Interior and Insular Affairs
and the
Subcommittee on Forests, Family Farms and Energy
Committee on Agriculture
United States House of Representatives

Concerning the Management of Old Growth Forests in the Pacific Northwest

June 22, 1989

MR. CHAIRMEN AND MEMBERS OF THE SUBCOMMITTEES:

Conservation of old-growth forests is a major issue. We appreciate this opportunity to present a Forest Service perspective on the subject. I am accompanied today by George Leonard, Associate Chief, and Dr. Thomas Spies, Plant Ecologist, Pacific Northwest Forest and Range Experiment Station.

This hearing is particularly timely since we recently developed a statement on the role of National Forests in providing old-growth values. A copy of the statement is attached to my testimony. Over the next few weeks, we will make the statement available to interested groups and congressional committees. We are hopeful that it will provide a good basis for productive discussions on this important issue.

Old-growth forests are typically the most complex and stable stage in forest succession. They provide many important values, including biological

diversity, wildlife and fisheries habitat, recreation, aesthetics, water quality, and industrial raw material. Old-growth forest lands make important contributions to our nation's economy, environmental quality, and thus to people. Our commitment is to manage these forests reasonably and prudently for the use and enjoyment of present and future generations.

We believe the land and resource management planning process required by the National Forest Management Act of 1976 is the proper forum for determining how to provide old-growth values on each National Forest. Our current Forest plans are based on the laws that govern our actions, national goals, public concerns, and, of course, ecological conditions and needs. In our view, these plans, developed with much input from various public interests, will provide for a full range of old-growth values consistent with public needs and our multiple-use charter.

There is a lot of debate and disagreement about the appropriate definition of old growth, particularly for the Douglas-fir forests of the Pacific Northwest. The use of different definitions by the Forest Service and various interest groups has led to varying estimates of old-growth acreages in the National Forests in California, Oregon, and Washington. A nationally consistent definition is essential to achieving a common reference point in discussing old-growth.

We are presently developing a national, generic definition of old growth which will be used as a framework by the Regions, Forests, and Experiment Stations to prepare more specific definitions tailored to the forest types found on each National Forest. Dr. Spies, Dr. Franklin, and others authored this draft

definition. The draft definition addresses old growth as an ecological condition. Structural features such as tree size, canopy layers, snags, and down trees are used to characterize old-growth forest lands. The specific attributes of old growth vary by forest type and over time as old-growth passes through early, mid, and late stages of development. A copy of this draft definition is attached to my testimony and we will discuss it with interested groups.

All trees, if not harvested, eventually die due to natural mortality or natural events. To perpetuate old-growth forests for diverse ecological and resource values, it is necessary to plan for their replacement after natural losses or cutting. This is done by letting nature take its course on some lands and by giving it an assist on other lands. Not only will we grow some stands to the age at which they achieve an old-growth condition, but also we will maintain old-growth attributes in some stands that are partially harvested. As an example, we are applying new forest landscape management techniques in some old-growth forests in the Pacific Northwest where a prescribed number of trees and snags is left along with down material to perpetuate some old-growth features for wildlife and other values. These techniques were developed by our National Forest and Research personnel in cooperation with Oregon State University.

In areas where old-growth values are to be protected, and if those values are not compatible with timber harvesting, the areas are excluded from timber production. Where old growth values can be achieved by measures such as extending final harvest age well beyond stand maturity or by silvicultural techniques such as I mentioned, the lands are included in the timber production

base. In making these determinations, consideration is given to the extent and location of old-growth on National Forest lands that are congressionally or administratively withdrawn from timber production, as well as adjacent public and private lands. We have made these determinations in the final Forest plans issued to date, and are in the process of making them as we develop final Forest plans for National Forests in California, Oregon, and Washington, and the revised Forest plan for the Tongass National Forest in Alaska.

How much and where old growth should be maintained depends on objectives, that is the set of values, benefits, and uses people desire from a particular National Forest. For example, the viability of spotted owls requires a certain amount of mature and old growth forests distributed in a network that links owl habitats across the entire regional landscape. Aesthetic values, watershed protection, and streamside fish habitat may require old growth in areas not occupied by spotted owls. And meeting the needs of people for highly valued wood from old trees means some old growth must be harvested.

As I mentioned, there has been a lot of debate about how much old growth there is, especially in the National Forests in California, Oregon, and Washington. Some have claimed that old-growth estimates in draft Forest plans significantly overstate the actual amount. We believe these differences are related to definitions, inventory methods, recency of inventory, and the purpose for which data were collected. The acres of old growth in draft Forest plans are estimates from inventories that were designed to provide data on timber conditions, not specifically the extent or location of old growth ecosystems. We are currently carrying out new inventories focused at obtaining better estimates of the amount and location of old growth ecosystems. In the

interim, we are updating existing estimates of old growth to reflect harvesting and fires that occurred since previous inventories were completed.

In any case, disagreement about the gross acres of old growth is only part of the issue. We are striving to provide the full range of values--ecological, aesthetic, and economic--that come from forests that contain old-growth stands. Those values depend on the characteristics of stands, their locations, their relationships to other forest conditions, and their roles in sustaining biological diversity. Only through a landscape approach to forest management can these objectives be addressed. The total amount of old growth, regardless of definition or adequacy of inventory, simply does not provide sufficient information to judge the ability of a forested area to meet the many needs people have for sustainable resources and environmental values.

There are two points I want to make in response to allegations about the liquidation of old growth. First, of the draft Forest Plans estimates of 6.2 million acres of old growth on the National Forests in Oregon and Washington, 3.2 million acres, or slightly over 50 percent, are set aside in wilderness and in other designated areas. Therefore, these lands are not, and will not be, available for harvest. Second, based on the allowable timber sales quantity proposed in the draft Forest Plans, it will take more than 50 years to cut the 3.0 million acres of old growth that is projected to be available for harvest under those plans. These numbers could change as we proceed with the final Forest plans. But the facts are: first, old growth in the National Forests will never come close to being liquidated, and second, harvesting the 50 percent potentially available for harvest would take at least 50 years.

Further, on lands available for timber production, we have the opportunity to manage for the replacement of old-growth where desirable.

We recently initiated an interim old-growth inventory on nine west-side National Forests in Oregon and Washington and adjacent National Parks, and three National Forests in northern California. We expect to complete this inventory in October 1990. We are also accelerating more intensive inventories for 17 National Forests in California, Oregon, and Washington, which include the 12 Forests undergoing the interim inventory. We are assigning a high priority to these Forests since this is where most old-growth issues are currently focused. As a part of these inventories, we will get better information on the extent and location of spotted owl habitat.

We expect to have the final inventories by October 1991. Information from these inventories will be used in considering whether Forest plan amendments are needed or as an information base to be used when plans are revised. In the interim, land management decisions will seek to maintain a variety of future options so that management can adapt to new information as it becomes available from research.

We are also proceeding with development of forest type definitions in all Forest Service Regions to guide the inventory of old-growth on a consistent basis throughout the National Forest System.

We know a lot about the features and benefits of old growth, but there is also a lot we don't know. Forest Service researchers at eleven locations in the Pacific Northwest, Pacific Southwest, Intermountain, North Central, Southern,

and Southeastern Research Stations are studying various aspects of old-growth ecosystems. This research includes:

- descriptions of the ecological characteristics of old-growth forests;
- investigations of old-growth-wildlife relationships;
- investigations into the role of old-growth forests as a primary winter habitat for Sitka black-tailed deer in Alaska;
- developing guidelines for wildlife monitoring techniques, including old-growth associated species;
- intensive studies on the biology of and management alternatives for spotted owls; and
- intensive studies on the biology of and management alternatives for red-cockaded woodpeckers in the South;

We are also expanding our efforts to develop forest landscape management to perpetuate diverse values, especially those related to old growth. To accomplish this, we also need to know more about the basic ecology of old-growth ecosystems. Drs. Franklin and Spies are helping in this effort, including:

- developing the knowledge and technology for a landscape level perspective in maintaining biological diversity in forest ecosystems;

- developing data collection standards and analytical guidelines needed to evaluate changes in biological diversity in response to management actions; and
- developing information on successional processes and ecological characteristics of old-growth forest stands and management options for maintaining biological diversity.

Finally, I want to update you on the critical situation that now exists with our timber sale program in Oregon and Washington. It concerns the difficult choices that must be made to protect northern spotted owl habitat in mature and old growth forests.

In December 1988, I signed a Record of Decision on Regional guidelines for planning spotted owl habitat management in Oregon and Washington. These guidelines would simultaneously provide for population viability of the owl and for sustained yields and harvest of timber from mature and old-growth forests. In my judgment, the decision provided a reasonable and prudent approach to balancing two very important roles for National Forest management: maintaining biological diversity and providing for sustainable resource uses. The decision combined planning direction for habitat protection with interagency coordination and an intensive research and development program for a 5-year period. A complete review of management direction would be undertaken by 1994, and revision would be made as warranted by new information.

We are now legally enjoined from offering 162 timber sales that would have been made within the congressionally authorized fiscal year 1989 budget and in compliance with all laws and regulations governing National Forest management. These sales comprise 1.4 billion board feet or approximately 25 percent of the fiscal year 1989 timber sale program in the Pacific Northwest Region. The potential exists for 400 or more sales to be enjoined, thus affecting about 2.5 billion board feet, if all remaining sales in spotted owl habitat were also enjoined.

With the proposed listing of the spotted owl as a threatened species by the Fish and Wildlife Service, we are now participating in an interagency process to review proposed sales in spotted owl habitat. The outcome of this process and its effectiveness in resolving the court suit will determine to what extent the sale program is affected. In the meantime, the unharvested timber under contract on the affected National Forests is quickly being harvested. This situation illustrates the importance of resolving old-growth issues as expeditiously as possible.

Planning the management of the National Forests is complex. Economics, social needs, environmental concerns, biological relationships, and land capabilities must all be considered to balance and integrate management of the many resources. Because of the wide variety of public needs and demands, a balance that is satisfactory to all is difficult to achieve. Our management decisions are, and will continue to be, formulated on the congressionally mandated principle of multiple-use management for the greatest long-term benefit of the American people. Public comments are carefully considered in the development

of our National Forest Plans, and they help us establish a reasonable and prudent balance of resource benefits and values to meet diverse public needs.

In conclusion, I want to assure both subcommittees that we care about the future of old-growth forests and their many important values. We are committed to securing their continued existence for present and future generations. We look forward to working with you and other interested Members and subcommittees as we better define and manage old-growth forests within the National Forest System.

This concludes my testimony. George Leonard, Tom Spies, and I will be pleased to respond to your questions.

(Attachments follow:)

NATIONAL FOREST OLD-GROWTH VALUES

The Forest Service recognizes the many significant values associated with old-growth forests, such as biological diversity, wildlife and fisheries habitat, recreation, aesthetics, water quality, and industrial raw material. Old-growth forests are important contributors to the Nation's economy, the well-being of its citizens, and environmental quality, and will be managed to provide all of the foregoing values for present and future generations. The extent to which these values will be provided are to be determined during the land and resource management planning process.

Old growth is defined as an ecological condition. Attributes, such as tree size, canopy layers, snags, and down trees, define forests that are in an old-growth condition. The specific attributes vary by forest type and also over time as old growth passes through early, mid, and late stages of development. Replacement of the appropriate amount of old growth depleted by natural events or by harvest will be achieved through succession of stands into an old-growth condition to provide a continuum of old-growth values over time.

Where goals for providing old-growth values are not compatible with timber harvesting, lands will be excluded from timber production. Where these goals can be achieved by such measures as extending the final harvest age well beyond stand maturity, lands will be included in the timber production base. In making these determinations, consideration shall be given to the extent and location of old growth on National Forest lands that are Congressionally or administratively withdrawn from timber harvest, as well as on adjacent ownerships. Consideration shall also be given to providing multiple old-growth values from individual areas excluded from timber harvesting or managed under extended rotations, to help mitigate the impacts on other resources.

Old-growth values are to be considered in designing the dispersion of current and future old growth. This may range from a network of old-growth stands for wildlife habitat to a designated area for public visitation. In general, areas to be managed for old-growth values are to be distributed over individual National Forests with attention given to minimizing the fragmentation of old growth into small areas of questionable ecological integrity. Old growth on lands in the timber production base not subject to extended rotations are to be scheduled for harvest to establish young stands which more fully utilize potential timber productivity.

Research and other efforts shall refine and validate forest type old-growth definitions, conduct old growth inventories, develop silvicultural practices which maintain or establish desired old-growth values, and increase the knowledge of old-growth ecosystems. Where appropriate, land management decisions are to maintain future options to preclude irreversible impacts before this knowledge can be applied in subsequent decisions. Accordingly, innovation is to be used in sustaining the significant role National Forests play in providing the many values associated with old growth.

6/14/89
Franklin and Spies

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GENERIC DEFINITION AND DESCRIPTION OF OLD-GROWTH FORESTS

Purpose

The following describes the ecologically important structural features of old-growth ecosystems. Measureable criteria for these attributes will be established in more specific definitions for forest types, habitat types, plant associations or groupings of them. The intent of the generic definition is to guide design of specific definitions and new inventories that include measurement of specific attributes. Although old-growth ecosystems may be distinguished functionally as well as structurally, this definition is restricted primarily to structural features which are readily measured in forest inventory.

Definition

Old-growth forests are ecosystems distinguished by old trees and related structural attributes. Old growth encompasses the later stages of stand development that typically differ from earlier stages in a variety of characteristics which may include tree size, accumulations of large dead woody material, number of canopy layers, species composition, and ecosystem function.

Description

The age at which old growth develops and the specific structural attributes that characterize old growth will vary widely according to forest type, climate, site conditions and disturbance regime. For example, old growth in fire-dependent forest types may not differ from younger forests in the number of canopy layers or accumulation of down woody material. However, old growth is typically distinguished from younger growth by several of the following structural attributes:

1. Large trees for species and site.
2. Wide variation in tree sizes and spacing.
3. Accumulations of large-size dead standing and fallen trees that are high relative to earlier stages.
4. Decadence in the form of broken or deformed tops or bole and root decay.
5. Multiple canopy layers.
6. Canopy gaps and understory patchiness.

Compositionally, old growth encompasses both older forests dominated by early seral species, such as fire-dependent species, and forests in later successional stages dominated by shade tolerant species. Rates of change in composition and structure are slow relative to younger forests. Different stages of old growth will be recognizable in many ecosystems.

Small, low severity disturbances are an integral part of the internal dynamics of many old-growth ecosystems. Canopy openings resulting from the death of overstory trees often give rise to patches of small trees, shrubs, and herbs in the understory.

Old growth is not necessarily "virgin" or "primeval". Old growth could develop following human disturbances.

TECHNICAL STATEMENT OF
DR. THOMAS A. SPIES, PLANT ECOLOGIST
PACIFIC NORTHWEST FOREST AND RANGE EXPERIMENT STATION
FOREST SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE

Before the
Subcommittee on National Parks and Public Lands
Committee on Interior and Insular Affairs
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Concerning the Management of Old Growth Forests in the Pacific Northwest

June 22, 1989

MR. CHAIRMAN AND MEMBERS OF THE SUBCOMMITTEE:

Forest ecosystems develop over long time periods. Older stages differ from younger ones in structure (sizes and condition of live and dead trees, and understory vegetation), species composition, and function (activity and interrelationships of plants, animals, energy and materials). As canopy trees become large, grow old, and die, they alter the structure of the forest, thereby changing its habitat potential and ecosystem function.

Old growth is a forest ecosystem distinguished by old trees and the structural attributes they create. Old growth encompasses the later stages of stand development that typically differ from younger stages in a variety of characteristics which may include tree size, accumulation of large dead woody material, number of canopy layers, species composition, and ecosystem function.

The age at which old-growth develops and the specific structural attributes that characterize old growth will vary widely according to forest type and other

factors. In the Douglas-fir Region of western Oregon and Washington and northern California, old-growth forests begin to develop at between 150 and 250 years of age. These forests then change slowly in structure and composition for many centuries until they are destroyed by natural or human disturbances. In contrast to younger forests, old-growth forests are characterized by: large trees for species and site; wide variation in tree sizes; high accumulations of large-size dead standing and fallen trees; decadence in the form of broken or deformed tops or bole and root decay; multiple canopy layers; canopy openings and understory patchiness. Definitions that apply minimum standards to these attributes have been developed by a research/management task force for several specific forest types in the region.

The structural attributes used to describe and define old growth have been selected because they play important ecological roles in these ecosystems. For example, large, rotted, fallen trees are important for wildlife and can be important for soil productivity.

Old-growth Douglas-fir forests have distinctive plant and animal communities when compared with younger natural forests. Some of these species may be dependent on old-growth forests for their survival; others may find optimum habitat in old growth but could survive in other forest conditions. The question of dependency is scientifically difficult to answer given the temporal and spatial variation in the habitats used by many species. For example, old growth may be important to some bird species during severe winters but not during normal winters or other seasons.

Functionally, old-growth forests are typically characterized by slow growth of the dominant trees. Forest tree respiration reduces net annual additions to

living organic matter, although total productivity and storage of carbon is high. The microclimate of old-growth forests is moderate and buffered against the climatic extremes found in young forests. Small disturbances in the form of the death of single or small groups of trees from windthrow or fire are characteristic of old growth.

Recent research suggests that some of the animal and plant species associated with old growth may find suitable habitat in young natural stands that have components of old-growth structure such as remnant old, large, live and dead trees. Many young natural stands are structurally diverse, having inherited some of the diversity of old-growth forests following natural disturbance. In contrast, young forest plantations, managed primarily for timber production under standard silvicultural practices, are structurally simple. They lack accumulations of large standing and fallen dead trees, have single-layer canopies, and have uniform sizes and spacing of trees. In general, such forests do not provide habitat needed by many organisms.

Young managed forests, however, are excellent for producing certain types of wood fiber. Older natural forests use most of their productivity in respiration rather than accumulation of new wood--but typically have only slowly changing levels of wood volume.

Ecological issues regarding old growth are really a subset of biological diversity issues and require scientific and management attention at at least two spatial scales: stands (relatively uniform forests of tens to hundreds of acres) and landscapes (the mosaic of forest conditions over 1,000 to 100,000 acre areas). At the stand level, the structure of the forest can influence the occurrence of individual species, communities, and ecosystem processes as

discussed above. Old-growth stands do not exist in a vacuum, however. Their position in the landscape mosaic of other stands can influence the species present within the stands, and the probability that they will be disturbed by fire and other catastrophic disturbances. The mosaic of the landscape can also influence the populations of animals in a region and the occurrence of insect and other pest outbreaks.

There is evidence that fragmentation of old-growth in the Pacific Northwest into widely scattered, small stands can reduce the quality of the communities and ecosystems. This may occur for several reasons: 1) the edges of old-growth stands may be poorer quality habitat than old growth interiors because the forest edge is subjected to more disturbance and climatic extremes; 2) small stands may not contain enough habitat for species whose ranges require larger areas; 3) animals and plants moving between widely dispersed old-growth habitat may be subjected to higher rates of mortality, and have greater physiological stress as a consequence of moving long distances to find suitable habitat. The long-term viability of populations of some species may be lower in landscapes where their habitat is highly fragmented. Much research is needed to identify the nature and magnitude of landscape effects and develop management guidelines.

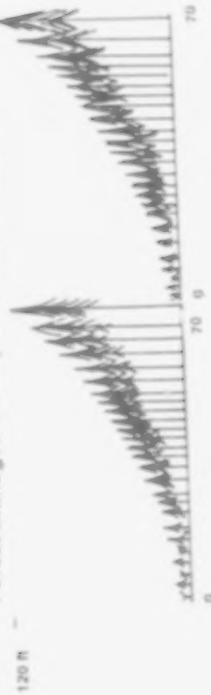
Significant opportunities exist to integrate timber and non-timber values at stand and landscape levels in an approach that has been called "new forestry". Pilot studies now underway indicate that timber harvesting of existing mature and old-growth stands can be done in a manner that retains some large, live and dead trees and understory vegetation, leaving a legacy of structural diversity in young, managed stands. Such stands may provide more suitable habitat for wildlife than traditional clear cuts and they may be visually more attractive.

The identification and evaluation of alternative silvicultural systems for forest stands is an important area for research and development.

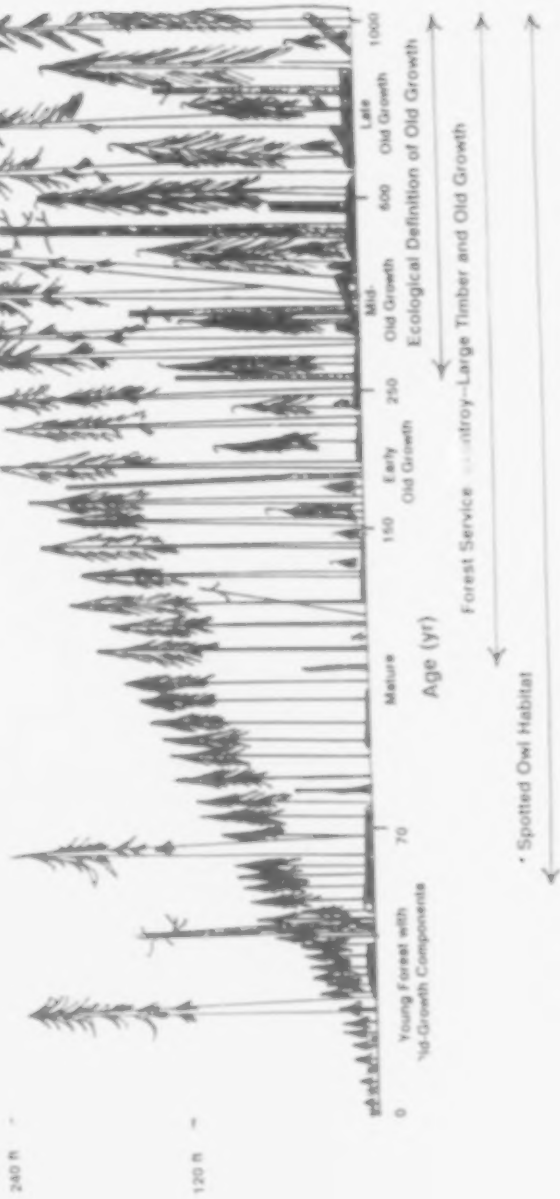
Preliminary analyses indicate that altering cutting and road network patterns in forest landscapes can significantly reduce fragmentation, provide travel corridors between habitat areas, and control frequency of disturbances from fire, wind, flood, insects, and pathogens. The design of managed landscapes that incorporate reserved areas as well as areas managed with different silvicultural techniques is a major challenge. Our forest landscapes will not remain the same--reserved areas sooner or later will change from succession, disturbance, and perhaps climate change. Maintaining a landscape mosaic through time that provides diverse consumptive and non-consumptive uses will require new approaches and technologies. Collaborative efforts between scientists and managers are needed to develop, evaluate, and demonstrate alternative landscape management strategies that provide a diversity of plants, animals, and ecosystems, minimize environmental impacts, and produce desired yields and uses of forest lands.

(Attachment follows.)

Forest Managed Entirely for Timber Production



Natural Forest Development



IDEALIZED CHANGES IN STRUCTURE OF DOUGLAS-FIR FORESTS FROM YOUNG TO OLD GROWTH

JUN 22 1980

STATEMENT OF DEAN E. STEPANEK, ASSISTANT DIRECTOR, LAND AND RENEWABLE RESOURCES, BUREAU OF LAND MANAGEMENT, DEPARTMENT OF THE INTERIOR, BEFORE THE SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS, COMMITTEE ON INTERIOR AND INSULAR AFFAIRS AND THE SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY, COMMITTEE ON AGRICULTURE, UNITED STATES HOUSE OF REPRESENTATIVES, ON OLD GROWTH FOREST ISSUES PERTAINING TO FOREST MANAGEMENT BY THE BUREAU OF LAND MANAGEMENT IN THE STATES OF OREGON AND WASHINGTON.

I appreciate the opportunity to appear here today to discuss old growth forest issues pertaining to forest management by the Bureau of Land Management.

The lands in Oregon and Washington administered by the Bureau of Land Management are managed in accordance with a wide variety of Federal laws, Executive Orders, regulations, and policy statements. Two laws provide the guiding principles and policies for management activities. They are the Oregon and California Railroad Grant Lands Act of 1937 and the Federal Land Policy and Management Act of 1976. The Oregon and California Railroad Grant Lands Act states that lands classified as timberlands or powersite-lands valuable for timber are to be managed for permanent forest production and the timber on such lands is to be sold, cut and removed in conformity with the principles of sustained yield forest management. The stated purpose of such timber harvesting is to provide a permanent source of timber supply, protect watersheds, regulate stream flow, contribute to the economic stability of local communities and industries and provide recreational facilities. The Federal Land Policy and Management Act of 1976 is especially important for its emphasis on a land use planning process as the basis for land management decisions and its reiteration of the principles of multiple use and sustained yield.

It has been the practice of the Bureau to utilize old growth timber in accordance with timber management plans. These plans include the harvesting of old growth timber as well as establishing several areas for the protection of other resource values and for scientific research. We are now re-examining our management practices in light of recent litigation dealing with protection of northern spotted owl habitat and in preparation for developing Resource Management Plans for the 1990s.

Of the 2.4 million acres we manage in western Oregon, over two million acres are classified as commercial forest land. Most are available for intensive management of timber. It is especially important to note that BLM timberland in western Oregon is not well blocked but most commonly exists as alternate one section tracts (640 acres) interspersed with comparable private and industrial lands in a checkerboard pattern. Furthermore, most BLM tracts are not, themselves, undisturbed but exhibit fragmented age classes as a result of several decades of timber harvest and forest regeneration. Thus, they represent a rich mosaic of new clear-cuts, young plantations, pole and mature size stands as well as old growth.

We are working with the Forest Service to develop a standard definition of what is considered old growth. We do not necessarily endorse a single standard as the definition of what is to be considered old growth. For our current estimates of old growth, we identified trees that are over 200 years old although there are some ecological types including those found in eastern Oregon and Washington that might be considered old growth at lesser years.

Old growth timber was included in an extensive inventory of all western Oregon BLM-administered forest lands completed last year. We estimate that about 448,000 acres of old growth timber remain on BLM administered lands in western Oregon. Of this total, about 143,000 acres are protected from timber harvest through existing management plans. The remaining 305,000 acres represent over one third of the timber stand age classes available for harvest on our lands in western Oregon.

In eastern Oregon and Washington, BLM manages about 222,000 acres of forest land. Of this about 82,000 acres are classified as old growth using the standard of 100 + years.

The economic benefits of old growth vary by market area and depend on the available inventory of old growth from all sources, public and private, in the area. Another consideration is how much second growth is available in the market area and the capability of the mills to utilize second growth. If old growth acreage were no longer available, the land base acreage available for harvest would shrink and we would lose the available volume in the old growth classification. Our plans consider the replacement of the older stands with younger, more productive young forests. Loss of this base would significantly lower the volume of timber produced from BLM's land base.

With respect to our annual allowable sale quantity, old growth timber accounts for 376 million board feet of our current sustained yield level of 1,176 million board feet.

The Oregon and California Railroad Grant Lands Act requires that BLM manage all suitable timber lands for the sustained production of forest products to provide for community and industry stability. Timber production is given priority on lands determined to be suitable, but we also consider other appropriate multiple use benefits.

We are developing Resource Management Plans for western Oregon with a great deal of public involvement in the process. Those plans are designed to preserve and protect wild and scenic rivers, areas of critical environmental concern, unsuitable or fragile land, habitat for endangered or threatened species, wilderness areas, cultural and historic sites and recreational facilities. All of these non-timber values can and are accommodated on BLM lands in western Oregon within the timber dominant framework of our legal mandate.

Timber is a renewable resource and we can use it perpetually, provided we manage it carefully. A particular stand of old growth can be managed, but cannot be preserved in perpetuity. Eventually all forest land regenerates, if not by harvest, then by natural means. We are working with Jerry Franklin, a well known forest ecologist with the Forest Service, to develop ways we can incorporate management practices into the Resource Management Plan alternatives to provide for some old growth attributes.

Just two weeks ago, the Ninth Circuit Court of Appeals reimposed an emergency injunction on BLM which has been imposed in one form or another for the past year. The injunction prohibits the offering for sale of old growth timber within a 2.1 mile radius circle of any of the spotted owl habitat sites identified in BLM's Spotted Owl Environmental Assessment dated May 1987, and those additional sites identified since and known to BLM. The total impacts of the injunction are not known at this time. It may be significant to note that each circle represents an area of about 14 square miles. These injunctions continue to reduce the number of board feet planned for sale for fiscal year 1989 by approximately 30 percent. A hearing on the injunction has been scheduled this summer.

Two months ago, the Fish and Wildlife Service determined that the northern spotted owl warranted consideration for listing as "threatened" under the Endangered Species Act. BLM will confer with the Fish and Wildlife Service on any action that may impact the owl. BLM is participating in an inter-agency conference process with the Fish and Wildlife Service, the National Park Service, and the Forest Service.

The Bureau recognizes the multitude of values of old growth timber and makes a concerted effort to reconcile conflicting values in developing its management plans. We also recognize that the Oregon and California Railroad Grant Lands Act requires us to manage the lands in a manner that will contribute to the economic stability of local communities and industries. All this requires tact and delicate balance. That is our goal.

This completes my prepared statement. We will be pleased to answer questions.



Founded 1875

Mailing Address
P.O. Box 2000
Washington, D.C. 20013

1516 P Street, N.W.
Washington, D.C. 20005

telephone (202) 667-3300

STATEMENT OF
R. NEIL SAMPSON
EXECUTIVE VICE PRESIDENT
THE AMERICAN FORESTRY ASSOCIATION

BEFORE THE
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON INTERIOR AND INSULAR AFFAIRS,
SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS,

AND
COMMITTEE ON AGRICULTURE,
SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY

JOINT OVERSIGHT HEARING ON
OLD GROWTH FORESTS OF THE NORTHWEST

JUNE 22, 1989

Mr. Chairman and Members of the Subcommittees:

I am Neil Sampson, Executive Vice President of the American Forestry Association, the nation's citizens organization for trees, forests, and forestry.

An underlying problem in this conflict over the management of old growth in the Northwest is that no clear consensus exists among National Forest users about the purposes of the National Forest System and the mission of the Forest Service. Many of the people who write or call us to comment on National Forest management do not recognize the essential difference between National Forests and National Parks. They are outraged when a single tree is cut down on the public lands, and often not satisfied by the explanation that these are lands set aside for producing many kinds of goods and services, including timber.

To us, this indicates that Americans need to better recognize and understand what the National Forest System is, why it has been retained in public ownership, and what it is supposed to accomplish in the public interest. Obviously, the necessary agreement on those objectives must start right here, in the Congress that represents the interests of all Americans. One thing, however, is clear: the commodity-dominated vision that guided the development of Forest Service budgets and policies for many years is no longer acceptable to increasing numbers of

Americans. The values of Americans in regard to the national forests are changing, and it is critical that the policies and programs that guide the management of those lands reflect these new values.

Changing perceptions about the role of the National Forests rise from the fact that the resources which are most scarce, and most valuable, today are different from what was seen as scarce and valuable in the past. For example, mature, old growth softwoods and high-quality hardwoods are scarce and valuable; ordinary wood fiber is not. From a biological standpoint, complex old-growth forest ecosystems are becoming more scarce; young forests are not. As a result, both old-growth timber products and old-growth ecosystems are increasingly prized.

-One reason it has been difficult to adequately recognize and respond to these changing perceptions of value is that these values are not always reflected in the marketplace. You can raise cash by selling sawlogs, but not by protecting the biological diversity of an old-growth ecosystem. Yet I would doubt that anyone today would propose that biological values are immaterial. The question -- how do we capture these non-market values and provide appropriate returns and rewards for skilled management that produces them?

Too much of today's old-growth debate is framed in either/or terms -- either harvest the remaining inventory as fast as possible and get those lands into intensive second-growth management for top dollar return, or throw up a wilderness boundary and don't let anyone touch the stuff. When this kind of polarity characterizes the debate, it is too hard to find a workable solution and too easy to succumb to over-statement and misleading comparisons in attempts to win public support for one side or the other.

One such example is the increasingly-heard comparison between the timber harvests of the Pacific Northwest and the rampant deforestation occurring in some tropical areas. These are vastly different situations, and to compare them is simply misleading. Those who have seen the complete destruction of tropical forests, followed by the loss of the soil's capacity to support a thriving new forest, do the public a serious disservice when they suggest that a similar process is happening in the United States. The young, vigorous forests that characterize most former old growth sites in the Northwest may be a poor substitute in the eyes of many people, but they represent a forest future of immense potential and productivity, not a scene of rampant destruction.

The Forest Service must, in our view, share some of the blame for the current polarization of the debate over old growth management. In too many National Forests plans, the Service proposed two alternatives: (1) Convert most, if not all, of the old growth stands on the commercial timber base into second growth forests, or (2) preserve areas of old growth in some sort of protected status. These alternatives set the stage for environmental groups and the forest industries to oppose one another from extreme positions, each trying to capture a few more acres in "their" category. The plans, and the subsequent controversy they attracted, too often missed a golden opportunity to outline a management framework that was both innovative and unique to the National Forests -- silvicultural systems that could provide a sustainable output of both the commercial and environmental values of old growth ecosystems.

We believe that the ever-more-valuable old-growth forests in the West should be

managed to produce a broad range of public benefits, including a sustained yield of old-growth timber products for centuries to come. The character and health of the people and communities of the Cascade Range are defined by the character and health of the region's forests. When all the old-growth is in parks and isolated wilderness areas, the region will be a different place than it was before. Maybe that's not all bad. But it's different, and people should approach that difference knowingly.

The real question, it seems to me, is: "Will we have old-growth Douglas-fir to harvest through the last half of the 21st Century?" If we start from the premise that most private timberlands will be managed to economic maturity and that, at today's prices, economic growth cycles are much shorter than biological cycles, we can assume that private lands will produce little or no old-growth in the future.

The development of a sustained-yield old growth management system should be one of the key management objectives of our National Forests, not only in the Northwest, but throughout the nation. We believe that the National Forests should be managed for their distinctive values, within the context of those values being provided from the other public and private lands surrounding each forest. It seems clear that one of the most "distinctive values" of the National Forests will be their contribution to regional bio- and economic diversity, provided largely by old-growth ecosystems and management techniques.

On the public lands, longer-cycle rotations are often more consistent with the non-consumptive public benefits that flow from the National Forests. Here we can make a case for a sustained-yield old-growth management system — one designed to produce a sustained yield of old-growth timber products while optimizing the other public values that form the basis for public ownership and management. The point is this: we ought to be able to keep old-growth public forests in active forest management, including the harvest of valuable forest products, without needing to convert them all to young second-growth or locking them up in wilderness.

Can we develop this type of sustained-yield old growth management system? We don't know, but we should try. The "New Forestry" concepts being discussed by Dr. Jerry Franklin and others are moving in the right direction. They promote the idea of better defining the characteristics of old growth and developing silvicultural systems that will produce these characteristics in a managed forest. The result could be a forest managed with a much "lighter hand," where biological diversity, wildlife, clean water, and prized recreational opportunities co-exist peacefully with an economically profitable system of timber harvest and re-growth.

Finally, we would like to commend efforts to bring environmentalists and the timber industry together to come to terms over old growth definitions and data, and to try to negotiate solutions to the economic and social problems that exist in the Northwest. We encourage efforts such as the June 24 meeting called by Oregon Governor Neil Goldschmidt, Senator Mark Hatfield, and others, and hope for their success. The controversy has reached the stage where it is costing all of the participants — and the land itself — dearly. It is time we moved beyond the bickering stage and applied the necessary energy to negotiating settlements that can be acceptable to a far broader range of forest constituents. We commend the subcommittees for this hearing, which we see as an attempt to encourage this dialogue, and offer our assistance as you proceed with the effort.

STATEMENT OF
PAT McELROY
DEPUTY SUPERVISOR
WASHINGTON DEPARTMENT OF NATURAL RESOURCES
BEFORE THE
HOUSE COMMITTEE ON AGRICULTURE
Sub-Committee on Forests, Family Farms, and Energy
and
HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
Sub Committee on National Parks and Public Lands

JUNE 22, 1989

Mr. Chairman. Members of the Committees. I am pleased to have the opportunity to present the views of Brian Boyle, Washington's Commissioner of Public Lands, on the timber supply situation in Washington State and the Northwest. I will present, briefly, four topics: A brief description of the work of the Commission on Old Growth Alternatives for Washington Forest Trust Lands; A review of the factors affecting the timber supply situation in Washington from our perspective; A statement of need relative to a forest inventory in Washington state; and a few comments relative to log exports, timber supply and old-growth preservation.

COMMISSION ON OLD GROWTH ALTERNATIVES. By May, 1988 Commissioner Boyle could see that unless some bold new approach was taken to deal with the issues related to timber harvest from state trust lands, demands for old growth preservation and demands for eliminating any threat to the spotted owl, the state would be faced with the same kind of lawsuits, sale appeals and other action as were occurring on federal lands. Thus, he established the Commission on Old Growth Alternatives for Washington's Forested Trust Lands. The significance of the Commission is that it is the only current forum in which all affected parties are negotiating spotted owl and old growth issues in a creative and non-adversarial way.

The Commission is a select group of 34 citizens broadly representative of the timber industry, conservation and wildlife groups, school and other trust beneficiaries, Indian tribes, local community leaders, legislators, and financial, legal and forestry leaders. The Commission's recommendations will be presented to Commissioner Boyle on June 28 in Seattle. While we are not able to release the final recommendations of the Commission at this time, I am able to present a summary of the issues they addressed and the process under which they have been operating. We believe for your purposes the nature of the Commission and the process under which it has been operating are perhaps more significant than their recommendations.

- The Commission was sanctioned and convened by an accountable decision maker, in this case, Commissioner of Public Lands, Brian Boyle.

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- A charter was developed by senior opinion leaders from interests represented on the commission.
- The participants were personally invited to participate by the convener.
- An independent facilitator and mediator was retained to administer the process.
- All affected parties were represented by citizens, not bureaucrats.
- The commission was given sufficient time to develop a common information base, commitment and trust.
- The commission was charged to reach consensus on as many issues as possible.
- Participants were allowed to keep their constituencies informed, but not to discuss specific matters with the public or press.
- Press statements were periodically available from the facilitator.

In the course of its work, the Commission considered a number of critical issues relating to old growth forests. Because the old growth forests on state lands in Washington are held for the financial support of educational institutions, the Commission studied the state's legal trust obligations and the almost \$1 billion asset value of state-owned "old growth." The Commission also studied the ecological values provided by mature forests on trust lands in relation to the adjacent Olympic National Park and Forest. The Commission heard from experts regarding use by spotted owls and learned how state lands may play a distinctive role in owl habitat. The Commission has studied the timber supply situation in the context of state and local industries and is studying ways in which harvest from state lands may be managed to provide a more stable economic base for the state and local communities.

The Commission has looked into ways in which local communities are being affected by federal and state timber supply decisions and found that both levels of government bear responsibility for economic impact assessment and response. The Commission has looked at lands and management plans of adjacent federal and private owners, and discussed how coordinated planning can occur to provide predictability in timber supply and protection of ecological values.

While, as I stated, we do not now have the recommendations of the Commission, it appears favorable that the Commission will reach consensus on these major issues in the context of Washington State's old growth trust lands on the western Olympic Peninsula. This fact alone is significant for it appears that diverse members representing environment, industry, tribes, local communities, wildlife groups and the environmental community can reach consensus on these types of issues given a proper framework in which to work.

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Further, it appears that the Commission's findings will support the original mission of balancing the need to provide trust revenue for education, support local timber-dependent economies, and protect the biological diversity of the forest environment. We hope that the Commission's findings will have applicability beyond the western Olympic Peninsula in Washington State and may be of assistance to other federal, state and local decision makers addressing the difficult issues relating to the old growth forest ecosystem, timber supply, spotted owls and the forest industry.

TIMBER SUPPLY. Timber supply is a complex issue. In the pure economic sense, one cannot talk about supply without talking about demand. And the relationship between supply and demand affects price. The "timber-supply shortage" in the northwest is principally confined to mills dependent upon federal timber as their raw material source. More than a true "supply shortage", it is a price issue. The fact is that mills cannot acquire timber at a price low enough to compete in the domestic lumber market. Timber harvest in Washington state from all ownerships in 1988 was the highest since 1973, and was exceeded only 2 times since 1950. Domestic lumber production peaked in 1987, with about a 5% reduction in 1988 and an anticipated 3-5% reduction this year, reflecting the downturn in the US housing market. Thus, we have a "price-price" squeeze. Off shore demand for both logs and finished products is high, pushing stumpage prices up. Total domestic demand is down preventing northwest mills from raising prices for finished products to levels that would meet their raw materials cost if they had to pay prevailing open market prices for stumpage. There is plenty of lumber available from the US South and Canada to supply the US domestic market.

Thus many Northwest lumber producers cannot compete in the open market for stumpage. That makes them vulnerable to any restriction in the supply of timber from federal lands.

TIMBER INVENTORY. The timber supply situation has both short term and long term elements. In the material I just presented, my focus was on the short term availability of timber for specific mills. In the longer view, there is a need for decision makers at all levels to have a clear understanding of how much timber there actually is in Washington, who owns it, where it is located and to what extent it is available for use and processing. At present there is no current source of information. The existing information is ten years old, even though the analysis may be recent. Further, normal federal forest inventory procedures will not provide detailed enough information at the local level.

Thus, Commissioner Boyle and the Department have proposed a more intensive survey of the timber inventory situation in Washington. While it cannot be completed before 1991, it is critically important to have this expanded inventory to address the long term supply situation in Washington.

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LOG EXPORTS. While log exports themselves are the subject of intensive debate and discussion, and not under discussion by this panel at this time, as we understand it, I would like to make a couple of points on the issue. The first is that the timber business is a very cyclic industry. We are now at a peak, which is causing many mills to have difficulty in finding logs to process. It was just a few years ago that many of the same communities that are now hurting because of restricted supplies of federal timber were being kept alive by log exports. Log exports can be and have been a counter-cyclic business for the forest products industry in Washington. But to continue, we have to be seen as a reliable supplier, supplying our foreign customer in good times as well as bad. Our current crunch is the result of extremely high off-shore demand coupled with quite high domestic demand.

The second point I want to make is that banning log exports, especially from state lands, will not save a single old growth tree. The old growth would still be subject to cutting, except that the logs would go to local mills at reduced prices.

Once again, I appreciate the opportunity to come before your committees and present our view on these matters of great importance to the state of Washington. I would be willing to answer any questions you may have.



THE WILDLIFE SOCIETY

5410 Grosvenor Lane • Bethesda, MD 20814 • Tel. (301) 867-9770

22 June 1989

TESTIMONY OF THE WILDLIFE SOCIETY BEFORE THE AGRICULTURE SUBCOMMITTEE ON FORESTS, FAMILY FARMS, AND ENERGY AND THE INTERIOR SUBCOMMITTEE ON NATIONAL PARKS AND PUBLIC LANDS CONCERNING OLD-GROWTH FORESTS OF THE PACIFIC NORTHWEST. Presented by Thomas M. Franklin, Field Director.

Mr. Chairman, members of the Subcommittees; thank you for this opportunity to present the position of The Wildlife Society concerning old-growth forest management and wildlife in the Pacific Northwest.

The Wildlife Society is a scientific and educational association of over 8,400 professional wildlife managers, researchers, educators, and administrators working in the public and private sectors to promote wise stewardship of natural resources.

Please enter into the hearing record The Wildlife Society review paper, "Management of Old-Growth Forests in the United States," and our position statement on this subject. I shall briefly summarize our findings and recommendations relative to old-growth forests in the Pacific Northwest.

Extent of old-growth forests

Old-growth forests are a rare and diminishing resource in North America. In the United States, they have been reduced to less than 5% of their original extent, with remaining stands rapidly disappearing primarily as the result of timber harvest practices. The remaining stands are concentrated on public lands in northern California, western Oregon, Washington, and south coastal Alaska. In the Douglas-fir region of the Pacific Northwest, only about 17% of old growth that existed in the early 1800's remains today. Currently, old-growth harvesting is occurring at an unsustainable rate.

Because of the scarcity of old growth remaining in the Pacific Northwest, it may be appropriate to focus agency action on the concept of old growth as a "threatened and endangered habitat or ecosystem...to provide a means whereby the ecosystem upon which endangered species and threatened species depend may be conserved."

Definition of old growth in the Pacific Northwest

The age of trees should not be the sole measure of old-growth conditions, because stands of trees could attain a particular age and still differ dramatically because of specific species characteristics, site quality, and past disturbance. Instead, old growth should be defined ecologically based on (1) composition of plant and animal species; (2) vegetative structure, including sizes and densities of living and dead trees (standing and fallen), and the number and nature of canopy layers; and (3) minimum stand size as related to specific ecological functions, particularly those concerning wildlife and fish habitat.

The term "old growth," as applied to the Douglas-fir forest types of western Oregon and Washington, has been defined ecologically by the Society of American Foresters as having "two or (commonly) more tree species with a range in tree sizes and ages and often including a long-lived dominant (e.g. Douglas-fir) and shade-tolerant associate (e.g. western hemlock [*Tsuga heterophylla*]); deep, multilayered crown canopy; some individual live trees...[>25/ha] that are either old...[>200 yr] or have achieved large size...(>1 m dbh); significant coarse woody debris including snags...[>25/ha, >6 m tall] and down logs...[>5 t/ha]; and some snags and logs...[min. 10/ha] of large dimension...[>60 cm diam and 15 m length]"

Old-growth forests and wildlife

Old-growth forests provide important wildlife and natural resource functions. In the Pacific Northwest old-growth forests are required by certain wildlife such as northern spotted owls and marbled murrelets. Old-growth forests also function ecologically as important pathways for fixing nitrogen, retaining and recycling nutrients, and producing high quality water. These functions benefit a broad diversity of wildlife.

Consequences of old growth loss to wildlife

Research indicates that altering forested landscapes results in changes in the distribution and abundance of wildlife. The depletion and fragmentation of old growth is reducing the chances of retaining viable populations of plants and animals that use or are dependent upon well-distributed old growth over the long term. Specifically, clearcutting of old growth replaces diverse, uneven-aged stands having high habitat value, with even-aged second-growth stands of lower diversity and decreased value for many wildlife species.

In addition, increased old growth harvesting threatens to create a relatively fine-grained, highly fragmented landscape pattern that includes an increase in the amount of forest-opening edges and a decrease in the size of old-growth forest patches. In many cases, these patches are so small and isolated that their continued existence is threatened by such factors as micro-climatic change and windthrow. Moreover, many such patches may be too small or isolated from other similar stands to function effectively as wildlife habitat for species associated with old growth.

Planning for old growth management

In planning for the conservation of old growth, careful consideration must be given to available information and professional judgments concerning (1) biological requirements and ecological relationships of associated plants and animals; (2) amounts, kinds, sizes, and arrangement of old-growth environments required to meet general ecological needs and to ensure the continued existence of associated wildlife; and (3) sizes of old-growth patches required to ensure long-term stability of old growth as an ecological unit.

How much old growth is needed?

Federal agencies should maintain old growth in the amounts, stand sizes, and distribution to ensure the continued existence of potentially dependent wildlife species; maintain existing plant and animal diversity; and maintain the possibility of reintroduction of extirpated species. Based on the relatively small amount of unevenly distributed remaining old growth and the current, inconclusive scientific knowledge of old-growth ecosystems, the best probability of success is to protect all remaining old growth and, if possible, produce more.

However, if old-growth harvesting is deemed necessary by the Congress, protection and maintenance of old growth as part of the managed forest in adequate amounts and appropriate distributions to ensure persistence of associated plants and animals on federally owned lands is necessary.

Recommendations

Old-growth management should place high priority on retention of enough old-growth forest to ensure viable and diverse wildlife populations and interchange of individuals among populations. Otherwise extinctions may result.

The Wildlife Society recommends that Congress undertake the following actions to ensure protection of the diminishing old-growth resources in the Pacific Northwest:

1. Recognize that old-growth forests cannot be recreated with current silvicultural practices and that efforts to maintain old-growth forests therefore must be initiated with existing old-growth stands and include provisions for replacing these stands through time.

- 2. Recognize that federal land management agencies are directed by laws and accompanying regulations of the U.S. to maintain diversity of plants and animals and viable populations of native wildlife, including the National Environmental Policy Act, the Endangered Species Act, and the National Forest Management Act.

3. Call for state and federal land management agencies to define, thoroughly inventory, and map existing old-growth forests.

4. Call for state and federal land management agencies to implement plans for maintaining old-growth forests that incorporate analyses of long-term cumulative effects, include clearly stated objectives about wildlife populations and biological diversity, and use an ecosystem approach in addition to focusing on high-profile species.

5. Call for the Forest Service and Bureau of Land Management to maintain a sufficient quantity and distribution of old-growth stands with comparatively high volumes of wood per unit area so that associated wildlife and other ecological functions are maintained.

6. Recognize that information presently is not available to determine the number, size, and distribution of old-growth stands required to maintain associated wildlife and other ecological values, and that in the absence of such information, sufficient old-growth stands should be maintained to permit the widest possible array of management options for the future.

7. Require federal land management agencies to plan to replace existing old growth over time. Younger stands must be permitted to mature into old growth to meet management objectives.

8. Call for federal agencies to manage old-growth forests based not on *minimum* habitat requirements, but at least on *average* habitat areas that sustain viable wildlife populations. The ecological risk of managing incorrectly is too high to make minimum strategies defensible.

The remaining old-growth forests of the Pacific Northwest represent the last remnants of an extremely valuable ecological resource. The management decisions made today will influence the future of these forests for many generations. The Wildlife Society urges Congress to ensure that old-growth stands of appropriate size and distribution are retained and perpetuated for the maintenance of biological diversity and the continuation of the functional attributes of forest ecosystems.

Thank you for this opportunity to present the views of the association of wildlife professionals.

(Attachment follows:)



THE WILDLIFE SOCIETY

5410 Grosvenor Lane • Bethesda, MD 20814 • Tel. (301) 897-9770

MANAGEMENT AND CONSERVATION OF OLD-GROWTH FORESTS IN THE U.S. POSITION STATEMENT

I. Definition of the Issue

Old-growth forests in the United States have been reduced to less than 3% of their original extent. Remaining old-growth stands are being eliminated rapidly, primarily by timber harvest, and cannot be replaced under current silvicultural programs. Old-growth forests function in a number of important ways in forest ecosystems, including providing critical habitat for several species of wildlife. Plans for maintaining old-growth forests must be developed and implemented if values of old-growth forests are to be retained.

II. Background

Old-growth, or virgin, forests are usually mosaics of variable-size trees ranging in age from seedlings to dominant, 200+-year old trees. They are dynamic, steady-state ecosystems in which total plant biomass is high and net biomass accumulation is low. Also of concern are old forests, defined as non-virgin stands that are "old" compared to the average interval between natural or man-induced disturbances, and in which biomass accumulation is nearly zero. Old forests are the closest facsimile to old-growth forests throughout much of the United States. They possess some of the attributes of the original old-growth forests and may, with time, become increasingly similar to old growth.

Old-growth forests are especially valuable for timber. Most (over 93%) of the original old-growth forests in the United States have been cut or lost to fire or other natural events, and much of the rest is being harvested rapidly. The remaining stands are concentrated on public lands in northern California, western Oregon and Washington, and south-coastal Alaska. Relict stands occur elsewhere in the United States. Old forest stands occur in many forested areas in the United States.

Old-growth forests are unique environments. They provide critical habitat for such species as the spotted owl in the Pacific Northwest, Sitka black-tailed deer in southeast Alaska, and red-cockaded woodpecker in the southeastern United States. Marten, red tree voles, northern flying squirrels, bald eagles, pileated woodpeckers and other cavity-nesting birds, Vancouver Canada geese, marbled murrelets, elk, mountain goats, mountain caribou, brown/grizzly bears, and several species of bats extensively use old-growth forests. Old-growth forests also are valuable in forest ecosystems because they provide important pathways for fixing nitrogen, retain and recycle nutrients, and help ensure supplies of high quality water.

Management and conservation of old-growth forests are mandated by laws (e.g., the National Forest Management Act) that deal with maintaining viable populations of native vertebrates, managing habitats for threatened and endangered wildlife, and perpetuating biological diversity. In the past, however, efforts to consider old-growth forests in land-use planning have been fragmentary and limited in scope, and there has been little coordination between and within state and federal agencies. As a result, major questions remain about how much old-growth forest still exists, where it is, and how much should be maintained for wildlife and other uses.

Agencies responsible for managing forested lands in the United States, especially the USDA Forest Service (FS) and the Bureau of Land Management (BLM) should take an active and vigorous role in conducting their mandate to ensure the long term existence of sufficient old-growth forests. Priority should be placed on inventorying and classifying old-growth forests, assessing regional wildlife-habitat relationships related to old-growth forests, and developing management plans that conserve old-growth ecosystems.

III. Position

The position of The Wildlife Society, in regard to management and conservation of old-growth forests in the United States is:

1. Recognize that old-growth forests are rare and unique ecosystems providing critical habitat for some wildlife species, and that maintenance of old-growth stands of appropriate size and distribution is essential for maintaining biological diversity.
2. Recognize that old-growth forests cannot be recreated with current silvicultural practices and that efforts to maintain old-growth forests therefore must be initiated with existing old-growth stands and include provisions for replacing these stands through time.
3. Recognize that federal land management agencies (primarily the FS, BLM) control the destiny of nearly all old-growth stands that exist outside of National Parks and Wilderness areas.
4. Recognize that federal land management agencies are directed by laws and accompanying regulations of the United States to maintain diversity of plants and animals and viable populations of native wildlife, and that special efforts must be made to prevent the decline of threatened or endangered species.
5. Call for state and federal land management agencies (especially the FS and BLM) to define, inventory, and map existing stands of old-growth forests.
6. Call for state and federal land management agencies to implement plans for maintaining old-growth forests that incorporate analyses of long-term cumulative effects, include clearly stated objectives about wildlife populations and biological diversity, and use an ecosystem approach in addition to focusing on high-profile species.
7. Call for the FS, BLM, and the U.S. Fish and Wildlife Service to expand research programs on wildlife-habitat relationships in old-growth forests.
8. Call for the FS and the BLM to maintain a sufficient quantity and distribution of old-growth stands with comparatively high volumes of wood per unit area so that associated wildlife and other ecological functions are maintained.
9. Call for state and federal land management agencies to retain adequate old forest stands in all areas where the number, size, or distribution of old-growth stands are insufficient.
10. Recognize that information presently is not available to determine the number, size, and distribution of old-growth stands required to maintain associated wildlife and other ecological values and, that in the absence of such information, sufficient old-growth stands should be maintained to permit the widest possible array of management options for the future.
11. Encourage the President and Congress to recognize the unique values inherent in old-growth forests, to provide adequate funding for research into the ecological relationships of old-growth ecosystems, and to direct the FS and BLM to provide for the conservation and management of the remaining old-growth forests.

Approved by Council, March 1988
Expires March 1993

MANAGEMENT AND CONSERVATION OF OLD-GROWTH FORESTS IN THE UNITED STATES¹

JACK WARD THOMAS, 206 Main Avenue, La Grange, OR 97850

LEONARD F. RUGGIERO, 3625 93rd Avenue S.W., Olympia, WA 98502

R. WILLIAM MANNAN, 1241 Golden Gate Drive, Tucson, AZ 85737

JOHN W. SCHOEN, 800 Fritz Cove Road, Juneau, AK 99802

RICHARD A. LANCIA, 6324 Doernbecher Drive, Raleigh, NC 27606

Management for production of wood fiber is rapidly changing the structure and composition of forests throughout North America. The dramatic reduction or elimination of forest stands beyond the age of commercial maturation represents a truncation of natural succession. This results in forest landscapes dominated by relatively young and undeveloped forests. Because young forests lack the structural and functional diversity of older forests, there is concern that managed forest landscapes may be ecologically inadequate to ensure long-term forest productivity (Maser and Trappe 1984, Spies and Franklin 1988) and the persistence of the full array of wildlife populations (see Norse et al. [1986] for an overview).

Therefore, retention of "old-growth" forests is an issue throughout the United States. This scope is reflected in plans prepared by the USDA Forest Service (USFS) for management of national forests. In addition, professional societies, industry consortia, environmental groups, and the U.S. Congress are strongly involved in the issue.

Politics surrounding management of older forests are most volatile in the Pacific Northwest, where >80% of the virgin forest has been altered, and Alaska, where significant amounts of virgin or old-growth forests with high commercial value remain. An intense debate over

the fate of this old growth has helped define the issues, most of which are relevant elsewhere in North America. This paper emphasizes the Pacific Northwest where the issue has emerged most clearly. However, the truncation of natural forest development and the concomitant simplification of forested ecosystems is a matter of concern across North America.

ECOLOGICAL CHARACTERISTICS

Old growth is best perceived as a stage of forest development characterized by more diversity of structure and function than that found in younger successional stages. These characteristics vary by region, forest type, and local conditions. A single all-inclusive definition of old growth is not feasible, although all forests have stages in development that exhibit greater ecological (structural, compositional, and functional) complexity than other stages. However, definitions of old growth for specific forest types are possible and necessary for management purposes.

For example, the term "old growth," as applied to the Douglas-fir (*Pseudotsuga menziesii*) forest types of western Oregon and Washington, has been defined ecologically by the Society of American Foresters (1984:29-30) as follows:

A stand with old-growth characteristics includes key features: Two or (commonly) more tree species with a range in tree sizes and ages and often including a long-lived dominant (e.g., Douglas-fir) and a shade-

¹ Modified from a discussion paper prepared by The Wildlife Society's ad hoc committee on old-growth forests.

tolerant associate (e.g., western hemlock [*Tsuga heterophylla*]); deep, multilayered crown canopy; some individual live trees ... [$>25/\text{ha}$] that are either old ... [>200 yr] or have achieved large size ... [>1 m dbh]; significant coarse woody debris including snags ... [$>25/\text{ha}$, >6 m tall] and down logs ... [>5 t/ha]; and some snags and logs ... [min. 10/ha] of large dimension ... [>60 -cm diam and 15-m length].

Two stages of forest development have been recognized for Douglas-fir forests. Young forests terminate with the culmination of mean annual increment of tree growth—the point at which average volume growth of a stand of trees is at its maximum. This typically occurs at 80–100 years of age. The mature stage begins at this point and usually persists for about 100 years, gradually developing into the old-growth condition at 175–200 years of age (Franklin et al. 1986a,b). Characteristics of these forests, especially as they occur in western Oregon and western Washington, are described in detail by Franklin et al. (1981), Franklin and Spies (1984), and Franklin et al. (1986a,b).

Other working definitions have been developed by Bormann and Likens (1979) for old growth in general, by Schoen et al. (1981) and Alaback (1982) for hemlock-spruce (*T. heterophylla*-*Picea sitchensis*) in southeast Alaska, and by Thomas (1979) for forests in the Blue Mountains of Oregon and Washington. Similar definitions should be developed for all forest types. In doing so, the age of trees should not be the sole measure of old-growth conditions, because stands of trees could attain a particular age and still differ dramatically because of specific species characteristics, site quality, and past disturbance (Bormann and Likens 1979, Franklin et al. 1981, Franklin and Spies 1984, Harris 1984, Soc. Am. For. 1984, Franklin et al. 1986b). Instead, old growth should be defined ecologically based on (1) composition of plant and animal species; (2)

vegetative structure, including sizes and densities of living and dead trees (standing and fallen), and the number and nature of canopy layers; and (3) minimum stand size (area) as related to specific ecological functions, particularly those concerning wildlife and fish habitat.

The complexity of old growth seems significantly associated with (1) vertical diversity produced by different tree species and sizes and a multilayered canopy; (2) increasing size of trees; (3) presence of relatively large standing dead trees and large logs; and (4) patchiness associated with small scale disturbances and death of individual dominant trees (see Juday [1978] for Douglas-fir forests of the Pacific Northwest).

These characteristics are associated with ecological processes and functions that (1) provide important pathways for fixing nitrogen, and retaining and recycling nutrients (Franklin et al. 1981, Maser and Trappe 1984); (2) produce high quality water and anadromous fish habitat (Meehan et al. 1984); (3) support specialized species of plants and animals (Franklin et al. 1981, Schoen et al. 1981, Matthews and McKnight 1982, Meehan et al. 1984, Raphael and Barrett 1984, Sigman 1985); and (4) represent a unique ecosystem with intrinsic values and extraordinary aesthetic qualities. Although the relationship between ecological complexity and age of the forest is not necessarily linear, the important structural and functional attributes discussed above develop as forests age (Spies and Franklin 1988).

Ecological conditions associated with unmanaged landscapes and old-growth forests are relatively stable compared to managed forests (Franklin and Forman 1987). Most forest ecosystems would be in such a state for the majority of their existence if not disturbed by cutting or catastrophic natural phenomena. Complex ecological relationships, involving many wildlife species and other organisms, have evolved within old-growth forests (Forman and Gordon 1986, Franklin and Forman 1987).

HARVEST OF OLD-GROWTH FORESTS

Most old growth in the United States is found in the Pacific Northwest and southeast Alaska (Franklin et al. 1981, Schoen et al. 1981, Harris 1984). In these regions, concern exists over the continuing reduction and potential loss of extremely old, relatively undisturbed forests that are not reserved by wilderness or park designations. Some interest groups support retaining as much old growth as possible because of its important ecological characteristics.

Other groups advocate cutting old growth at an accelerated rate because of its great commercial value and the "waste" that such forests represent in the economic sense, i.e., net growth can be minimal in such forests (DeBell and Franklin 1987). Such advocates define old growth as "stands beyond financial maturity—where the rate of growth in stumpage value begins to decline below some specific rate of return" (Soc. Am. For. 1984:5). Many local economies, and a significant portion of some regional economies, are tied to the timber industry and the harvesting of old-growth forests. This results in political pressure for continued or accelerated rates of cutting old growth. Rates of cutting similar to those of the recent past are necessary to sustain historic timber harvest levels (Sirmon 1984, Teeguarden 1984).

During the evolving debate on management of old growth, much has been made of the lack of knowledge concerning ecology of old-growth forests and the political consequences of this uncertainty. Various interest groups involved in the debate persist in attempts to shift the burden of proof. Those who advocate cutting of old growth at historic or accelerated rates want to continue until all aspects of the scientific questions are certain. Those who advocate cessation of old-growth harvest insist that cutting of old growth should cease until it is certain that all suspected ecologically func-

tional attributes of old growth are investigated and evaluated.

It is critical, then, to identify what is known and what is not. Most old-growth forests in the United States (excluding the taiga in Alaska) have been cut or have succumbed to natural forces, leaving intact as little as 2–15% of virgin forests similar to those that existed when Europeans arrived on the continent. Most old-growth forests exist on federal land, logging continues in this remaining old growth, and more logging is scheduled. It is certain that there is an ongoing inexorable reduction of old growth, and that chances of retaining viable populations of plants and animals in a well-distributed state over the long term are reduced to some degree with each additional reduction in old growth.

In the Douglas-fir region of the Pacific Northwest, only about 17% of old growth that existed in the early 1800's remains today (Spies and Franklin 1988). Timber harvesting and urbanization in this region have created a situation where much old growth exists as patches within a mosaic of managed forests, agricultural lands, and cities. The most accessible and valuable stands are often cut first, resulting in the removal of old growth at low elevations on relatively gentle terrain.

Increased harvesting threatens to create a relatively fine-grained, highly fragmented landscape pattern (Harris 1984, Franklin and Forman 1987) that includes an increase in the amount of forest-opening edges and a decrease in the size of forest patches, including old growth. In many cases, these patches are so small and isolated that their continued existence is threatened by such factors as microclimatic change and windthrow (Franklin and Forman 1987). Moreover, many such patches may be too small or isolated from other similar stands to function effectively as wildlife habitat for species associated with old growth (Harris 1984, Norse et al. 1986).

When all forest stands identified for com-

mercial management within a management unit are converted from old growth to younger stands and the unit attains a uniform distribution of age classes, it is said to be "regulated" or "under regulation." Once this state is achieved, all such stands will be cut, regenerated or planted, tended, and recut when they reach rotation age. Thus, the early stages of forest development will dominate managed forest landscapes. Stands of trees older than the rotation age will be rare or absent, except on areas (1) dedicated to old growth; (2) protected from timber cutting for other reasons such as research natural areas, wilderness areas, and stream protection; or (3) not otherwise suitable for timber production.

OLD GROWTH AND WILDLIFE

Although consequences of truncating forest development and altering natural landscapes are poorly understood, changes in the distribution and abundance of forest wildlife result (see overviews by Dawson et al. [1986] and Norse et al. [1986]). Most forests in the United States were cut before ecology and wildlife biology emerged as sciences. In the last 15 years, research has been conducted on the ecology of old growth (Harmon et al. 1986, Spies and Franklin 1988) and some of the wildlife species that inhabit such forests (Gutierrez and Carey 1985).

Numerous species of wildlife use old growth disproportionately to its occurrence within their ranges (Thomas 1979, Franklin et al. 1981, Meslow et al. 1981, Meehan et al. 1984, Brown 1985, Sigman 1985, U.S. Fish and Wildl. Serv. 1985). Such species include marten (*Martes americana*), fisher (*Martes pennanti*), red tree vole (*Arborimus longicaudus*), northern flying squirrel (*Glaucomys sabrinus*), elk (*Cervus elaphus*), mule deer (*Odocoileus hemionus*), mountain goat (*Oreamnos americanus*), brown bear (*Ursus arctos*), several species of bats, bald eagle (*Haliaeetus leucocephalus*), north-

ern spotted owl (*Strix occidentalis caurina*), pileated woodpecker (*Dryocopus pileatus*), Vancouver Canada goose (*Branta canadensis fulva*), marbled murrelet (*Brachyramphus marmoratus*), red-cockaded woodpecker (*Picoides borealis*), a variety of other cavity-nesting birds, and several species of amphibians. Under certain conditions, old growth may provide critical habitat for these and other species (Ruggiero and Carey 1984; Schoen et al. 1984; O. C. Wallmo, USFS, unpubl. rep.). However, the degree of dependency on old growth by most species found to be most abundant in old growth is not completely understood (Carey 1984). Species that use old growth mixed with younger stands, or appear to be highly dependent on old-growth forests, or some component of old-growth forests, include the northern spotted owl in Douglas-fir forests of the Pacific Northwest (Forsman et al. 1984), the red-cockaded woodpecker in the longleaf pine (*Pinus palustris*) forest of the Southeast (U.S. Fish and Wildl. Serv. 1985), and the Sitka black-tailed deer (*Odocoileus hemionus sitkensis*) in western hemlock and Sitka spruce forests of southeast Alaska (Wallmo and Schoen 1980).

Old-growth management should place high priority on retention of enough old-growth forest to ensure viable wildlife populations and interchange of individuals among populations. Otherwise extinctions may result. In the eastern United States, for instance, nearly all old growth has been eliminated as the result of a long history of intensive cutting and clearing of forests. Extinction of the ivory-billed woodpecker (*Campephilus principalis*) in the United States and the endangered status of the red-cockaded woodpecker (Dawson et al. 1986) are associated with this loss of old growth.

The most popular, politically effective, and publicized arguments for retaining old growth as part of the managed forest landscape revolve around habitat requirements of wildlife species. Five factors contribute to this situation: (1) some species depend on old growth;

(2) increased fragmentation of remaining old growth is assumed to cause a decline in associated wildlife; (3) such declines in numbers might result in the "listing" of additional species by the U.S. Fish and Wildlife Service as endangered, thereby precluding continued deleterious alteration of critical habitat; (4) the USFS (the agency controlling most of the old growth subject to cutting) is required by regulations issued pursuant to the National Forest Management Act (NFMA) of 1976 (16 U.S.C. Sec. 1600 [1976]) to maintain viable and well-distributed populations of all native vertebrate species (MacCleery 1982); and (5) the old-growth management issue is inherently complex, and reducing the issue to one of potential extirpation of wildlife species is operationally and politically appealing.

As a result, significant portions of the old-growth management debate center around species of wildlife such as the Sitka black-tailed deer in Alaska and the marbled murrelet and northern spotted owl in the Pacific Northwest. In the Pacific Northwest, the U.S. Bureau of Land Management (BLM) and the USFS have predicated a significant portion of old-growth management plans and research efforts on habitat needs of the northern spotted owl (Nunan 1986). Environmental groups are pressing for similar attention to the marbled murrelet. Single species, the biology of which are incompletely understood, have become surrogates for other old-growth values and other species. Thus, political strategies and biology become so inextricably tangled that participants in the old-growth management drama seem uncertain of where science ends and politics begin. Emphasis on single species was a logical, perhaps inevitable, result of the desire to address old growth as a wildlife habitat as required by law and regulation. After all, consideration of ecosystem management is relatively new and is infinitely more complex and demanding in terms of information required than single-species considerations.

The old-growth management issue embod-

ies the fate of complex and unique forest ecosystems of which wildlife are only part. Accordingly, it seems more appropriate to concentrate attention on the concept of a "threatened and endangered habitat or ecosystem." Such a concept would be a logical extension of the provision of the Endangered Species Act of 1973 (16 U.S.C. Sec. 668 [1967]) to "... provide a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved ...". In addition, other aspects of old growth, including scenic, philosophical, and spiritual values, must not be overlooked.

OLD-GROWTH MANAGEMENT

Information on the amounts, locations, and sizes of remaining old-growth stands does not exist in adequate detail. Yet, such inventories are required to establish adequate management plans. The ecological complexity of old growth makes it unlikely that forest managers can create functional old growth through silvicultural manipulations of younger-aged, second-growth forests (Soc. Am. For. 1984). Certainly, such knowledge does not now exist. Therefore, management plans for providing old growth as part of managed forests must be based, at least initially, on existing old-growth stands. However, there may not be enough remaining old growth to meet ecological needs in some areas (e.g., at low elevations in the Pacific Northwest [Harris et al. 1982]). Also, old-growth stands reserved from cutting will not last forever. Destructive events (e.g., fire, windthrow, and insect and disease outbreaks) that are improbable in the short term are inevitable over the long term (Harris 1984).

Therefore, it is essential to assume that old growth can be produced to replace existing old growth and to permit younger stands to mature to old-growth state in areas where old growth is inadequate in quality, amount, or distribution to meet management objectives. It is not certain if these replacement stands will be-

come old growth similar to that which now exists, but there seems to be no alternative to such a scheme if the intent is to include old growth as part of managed forest landscapes in the future.

Maturation of unmanaged, second-growth stands into old-growth condition will take at least 200 years in some areas. If silviculture is used to expedite this process, it should be done with the understanding that such action is experimental, and results lie many decades or centuries in the future. Accordingly, management options that include retention of existing old growth must be given priority.

Old-growth management options vary among regions. Clearly, most options for old-growth management have been already lost in most regions and over large areas in regions where old growth is relatively abundant. In the eastern United States, old growth is essentially absent and relegated to parks and wilderness areas. Therefore, in order to eventually provide some facsimile of old-growth forests, it will be necessary to identify forested areas for management under extremely long rotations or for indefinite protection from harvest.

In contrast, old growth remains in relative abundance in the Pacific Northwest. In southeastern Alaska, some old growth still exists in vast unbroken tracts. Old growth has existed in this condition for thousands of years and may remain in a similar ecological state if left intact at least at the level of fourth-order watersheds (usually containing >2,000 ha). This permits the option of retaining at least some existing old growth while planning for replacement of old growth as part of a regional old-growth management network.

Plans for old-growth management must be based on existing management options and knowledge of the ecological system in question. Careful consideration must be given to available information and professional judgments concerning (1) biological requirements and ecological relationships of associated plants and animals; (2) amounts, kinds, sizes, and ar-

rangement of old-growth environments required to meet general ecological needs and to ensure the continued existence of associated wildlife; and (3) sizes of old-growth patches required to ensure long-term stability of old growth as an ecological unit.

Existing knowledge and professional judgment in the area of forest ecology are too often underemphasized in setting policy and planning for management of publicly owned forestland. Objectives for wood fiber production often are based largely on considerations such as historic levels of timber harvest, capacity of mills, and consideration of economic factors. While such decisions may be economically compelling, they are ecologically naive. Wildlife and other ecological values are too frequently considered by some only as "constraints," but are, in reality, important values (and are defined as such in law) that should be embodied in the management objectives initially. Wildlife should be viewed as one of several joint products from managed forests, not a constraint on timber production.

Adequate information to guide management of old growth can be obtained only by a major and sustained commitment to research that focuses on the ecology (including wildlife relationships) of late seral stages in all forest types across the United States. Although such community-oriented research is ongoing in some regions (e.g., Ruggiero and Carey 1984), investigations have been, and continue to be, insufficient to provide timely, comprehensive information to guide management of old growth.

The lack of quantitative information about functional attributes of old growth and habitat associations of potentially dependent plants and animals and the rapidly declining old-growth resource indicates that purposely conservative management plans should be developed and adopted. Our knowledge and understanding of old-growth communities is not adequate to support management of remaining old growth on criteria that provide minimum habitat areas

to sustain minimum viable populations of one or several species. The potential consequences and the distinct probability of being wrong are too great to make such strategies defensible in the ecological sense.

We stress that a conservative approach to management of old growth is not necessarily the same as no action or the preservation of all remaining old growth. Given current land management policies and existing political and social circumstances in the affected regions, "no action" and "no cutting" are not considered politically or economically realistic options by most land managers and political leaders. In the Pacific Northwest, a region with uncommonly large amounts of old growth, the old growth that remains is highly valuable and looms large when the economic welfare of the region is considered, particularly in the short run. However, unless agencies determine and state the desired level for retention of old growth, it is difficult to assess the agencies' commitment and performance regarding old-growth management.

How Much Old Growth?

Although there are many imperative research questions that must be answered to properly manage old-growth forests, land managers cannot afford to wait for all the answers. The question—"How much old growth is needed?"—requires an immediate response. To answer that question, it is necessary to ask a more fundamental question—"For what purpose is maintenance of old growth being considered?" Looking to commercial or environmental interest groups for answers seems inappropriate, because those segments of society are not representative of the broad-based sociopolitical processes that should determine policies and objectives for public land management. Rather, we looked to appropriate statutes and regulations.

The Multiple-Use Sustained Yield Act of 1960 (MUSYA) (16 U.S.C. Sec. 528-531 [1976]),

though more philosophical than specific, was the first dictate that the USFS would be concerned with fish and wildlife in managing the National Forests. The National Environmental Policy Act of 1969 (NEPA) (14 U.S.C. Sec. 4321, *et seq.* [1970]) required examination of environmental consequences of all federally funded activities. NEPA is particularly germane to the old-growth and forest management issues as it requires, in our opinion, full examination of the effects of diminution of old-growth forests on the environment, including fish and wildlife. The Endangered Species Act of 1973 (ESA) declared opposition to extinction of any species of plant or animal. Though not so recognized when enacted, it was the first legal requirement for consideration of diversity in federal land management with a clause "provid[ing] a means whereby the ecosystems upon which endangered species and threatened species depend may be conserved." The Forest and Rangelands Renewable Resources Planning Act of 1974 (RPA) (16 U.S.C. Sec. 1601 [1976]) instructed the USFS to evaluate renewable natural resources in the United States and to develop programs to meet multiple-use objectives, including the instruction to "... provide for diversity of plant and animal communities based on the suitability and capability of the specific land area in order to meet overall multiple-use objectives."

Regulations issued pursuant to NFMA (MacCleery 1982) stated that all resident native and desirable non-native species of wildlife should be maintained in well-distributed viable populations on National Forests. Given that some species of plants and animals are closely associated with old-growth environments and the knowledge to determine the degree to which such associations constitute ecological dependencies is lacking, the answer to—"For what purpose?"—is obvious. There are mandates to maintain old growth in the amounts, stand sizes, and distribution to ensure the continued existence of potentially dependent wildlife species; to maintain existing plant

and animal diversity; and to maintain the possibility of reintroduction of extirpated species on forests managed by the USFS. Such mandates should be extended to lands under BLM and other federal agency management at the earliest possible time.

The answer to—"How much?"—must be predicated on the relatively small amount of unevenly distributed remaining old growth and the current, inconclusive scientific knowledge of old-growth ecosystems. Therefore, the best probability of success is to preserve all remaining old growth and, if possible, produce more.

However, the sociopolitical process that required the maintenance of well-distributed, viable populations of plant and animal species has produced related mandates that conflict. Because the scientific, economic, and social issues are complex and interrelated and a consensus has not been reached on forest management, clear political direction has not emerged. Considering requirements of MUSYA, ESA, RPA, NEPA, and NFMA, and the regulations issued in regard to those Acts, we conclude that preservation and maintenance of old growth as part of the managed forest in adequate amounts and appropriate distributions to ensure persistence of associated plants and animals on federally owned lands is required.

It is uncertain just how much further old growth can be reduced and still meet requirements of law. Biologists and ecologists should not apologize for these uncertainties, however. Rather they must make tentative judgments based on synthesis of available scientific knowledge. They must not compromise technical judgments because of perceptions of political reality or expediency. Scientists and biologists must provide objective information including the probability of success of proposed courses of action. Such is their professional mission and to do otherwise diminishes credibility. The sociopolitical process mandated by NEPA, ESA, and NFMA is designed to do the rest. That

process defines responsibility for making decisions and the mechanisms of those decisions. Biologists should participate in that process in 2 ways—as providers of technical information and guidance and as interested citizens.

Accelerated research into the ecological aspects of old growth, particularly in the area of habitat relationships of associated plant and animal species, is mandated by circumstances. But mandating more research cannot substitute for current policies and plans that are based on the best available information, professional judgment, and recognition of the potential consequences of management actions.

Management Responsibility

The retention of old growth is predominately a federal lands issue. In some states (e.g., Calif., Oreg., and Wash.), however, state and private timberlands can play an important, even critical, role in preserving old-growth stands in close enough proximity to one another. This enhances exchange of individuals and prevents isolation of populations of wildlife dependent on old growth. Still, the primary responsibility for retaining an adequate quantity and distribution of old growth rests squarely with federal agencies entrusted with management of publicly-owned forests and with interested publics that provide support for appropriate retention of old growth. Most old growth left in the United States is located on lands administered by the USFS, the BLM, the National Park Service, and other federal agencies (Harris 1984, Soc. Am. For. 1984). We believe that applicable laws (MUSYA, ESA, NFMA, RPA, and NEPA) combine to give inescapable direction to those agencies.

Some agencies, in some regions, have produced tentative forest management plans that represent a significant advance in management of old growth over existing plans. For example, the USFS's Pacific Northwest Region (Oreg. and Wash.) has drafted plans that pro-

vide for maintenance of old growth to provide wildlife habitat, wilderness areas, research areas, and diverse recreational opportunities, and to protect municipal watersheds and areas unsuitable for sustained yield forestry. Each National Forest presents an array of alternatives for management with different levels of retention of old growth. The alternatives identified as "preferred" by the agency as of March 1988 call for retention of 1,336,000 ha (53%) of the existing 2,510,000 ha of extant old growth on these forests. Of the 1,336,000 ha to be retained, some 283,000 ha (21%) are in wilderness areas; 126,000 ha (9%) are to be retained specifically for spotted owls and associated species, and the remaining 850,000 ha (64%) are designated for other purposes mentioned above.

The consideration of old growth as wildlife habitat is piecemeal and largely oriented to single wildlife species. There is room for improvement in considering such questions as effects of forest fragmentation across the spectrum of wildlife species, the stability of isolated old-growth stands, and the influence of catastrophic events on the adequacy of the old-growth network. Further, final plans may not reflect the agency recommendations contained in draft plans. Plans are often altered following the political and technical debate and public response that follows the issuance of "draft" plans. Therefore, the ongoing land use planning processes of federal land management agencies emerge as the key factor for the fate of old-growth forests as wildlife habitat.

CONCLUSION

The state of scientific knowledge in forest and wildlife ecology cautions against additional haphazard reduction in the quantity, quality, and distribution of old-growth forests. Old growth should be retained as part of managed forests if the intent is to maintain some relic semblance of natural biotic diversity and eco-

system function. In the ecological sense, it would be short-sighted and illogical to eliminate future management options for old growth while simultaneously acknowledging ignorance about potential ecological ramifications.

This situation begs attention to Aldo Leopold's (1949:190) cautionary statement that "The first rule of intelligent tinkering is to save every cog and wheel." Our tinkering with old-growth forest ecosystems has been less than fully intelligent. Fortunately, the process of saving the "cogs and wheels" represented by old-growth forests is underway. Wildlife biologists have a significant role to play, both as technical experts and as concerned citizens, in assuring an outcome that provides for the persistence of wildlife associated with old-growth forests.

SUMMARY

The harvest of old-growth forests for wood products sets back natural succession by removing forest stands that have a unique diversity of structure and function. Only 2-15% of the virgin forests that existed when European settlers arrived remain today. In the Pacific Northwest, where the current debate over old-growth management is centered, about 17% of the old growth that existed in the early 1800's remains. A number of wildlife species use old-growth forests disproportionately to their occurrence, but the degree of dependency on old growth is not well understood. While much of the old-growth debate emphasizes single species of wildlife, such as the northern spotted owl, the old-growth management issue more appropriately involves complex and unique forest ecosystems.

Management plans for providing old growth must be based on existing stands because replacement stands cannot be produced by silvicultural practices; they must come from stands that are allowed to develop naturally into old growth. We believe that a number of

federal statutes mandate the preservation and maintenance of old growth as part of the managed forest. These dictates include the National Environmental Policy Act, the Endangered Species Act, and the National Forest Management Act. Continued reduction of old-growth forests may conflict with the intent of these statutes.

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